THE CRAFT OF CONSTRUCTING SOCIAL RESEARCH PROJECT

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The Craft of Constructing Social Research Project

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FOREWORD

Research aptitudes are in high clamor around the world. This book explains what research project stratagems and methods are and how to show that you have them in the social sciences!

A research project could be a logical and scientific venture or wander to reply to an investigation, address the research question that may comprise case study, case-control study, randomized, controlled trial, survey, secondary data analysis such as decision analysis, cost-effectiveness analysis or meta-analysis, etc. A social science researchproject covers areas such as rural development, sociology, anthropology, archeology, linguistics, communication, media studies, history, human geography, linguistics, political science, psychology, public health, cultural studies, economics, etc. Even, management research, by nature, is interdisciplinary, drawing from multiple fields in humanities and social sciences and regularly bringing them together to generate novel contributions to research.All these disciplines are broadly related to society and connections between people inside society. Numerous other disciplines are considered a social science. Not as it were in social sciences only, in all sciences, it is the research exercises and findings that create innovative information. In modern academic research, researchers are often eclectic, for example, using multiple methods that combine both quantitative and qualitative research. Social research picks up a certain degree of independence since professionals in numerous disciplines share their reason and strategy. Based on these disclosures, this book is composed to cover the philosophical roots of numerous strategies and points of view within the social sciences, as well as essential concepts and strategies. The social sciences have advanced from standardizing hones related to the social enhancement of science (experimental and applied) or efficient information bases or bunches of collaboration substances. In present-day times, "social science" was utilized as an autonomous conceptual field. Social science was impacted by positivism. Positivism maintained a strategic distance from negatives by centering on information based on the involvement of a genuine positive sense. The metaphysical hypothesis was avoided.

The main purpose of the book "The Craft of Constructing Social Research Project" is to present readers with the subjects of social sciences, particularly essential research strategies in anthropology (human studies), sociology (society's science), political science, economics, psychology, culture, history, communication studies, and linguistics. The book focuses primarily on concepts, techniques, and tools. A good understanding of research methods and data analysis assists achieve excellence and rigor in scientific writing, conducting research, generating new

knowledge, and teaching social science researchmeritoriously. The book aims to familiarize graduates, undergraduates, scholars, researchers, and beginners with the methods and techniques of basic research in the social sciences. All the methods and techniques of social science research have been presented in this book with balance and restraint, analyzing each method and tool by providing criticism and implications. A great power to understand social science research methods is to understand the concepts, methods, and tools of research methods and to be able to choose better fieldwork, better data analysis, and better research reports. It is essential to select useful and interesting examples of the attribution display. It is also very important to connect theory with actual research, and this book has succeeded in doing so. The book also systematically presents all relevant ideas, ethical codes, ethical dilemmas in field research, etc. with examples from a variety of backgrounds. Broadly, the key features of the book include:

a. organizing, structuring, and planning a social research project
b. concepts, techniques, and tools of social research
c. diverse types of data and measurement skills
d. gathering and analyzing data to draw sound conclusions
e. the ethical issues involved in research.

In nutshell, this book provides key guidelines to social science students, teachers, researchers, scholars, and authors to understand the process of scholarly creation, masterful knowledge analysis, and knowledge base expansion in social sciences.

Authoring a book could be a thought-provoking assignment. Building the world, and creating and analyzing your thoughts may be anexciting disclosure handle that authors regularly experience.Further, writing without encouragement can be a problem. The process for each writer may be a small distinctive. A few may lean toward composing a scene-by-scene overview of each chapter sometime recently beginning, whereas others type in the complete book from beginning to wrap up with a minimal layout. Numerous scholars are more introverted than normal, so they require a part of the time for one individual. Still, whereas composing this book, I went through a part of my time on my thoughts and writing process that isolated me since I needed to complete this book. One of the best sources of inspiration wasmy senior colleagues, my friends, and my family. Last but not least, I would like to express my sincere gratitude to the publisher for accepting my proposal to publish this book.

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SKILLS OF RESEARCH, ISSUES, PROBLEMS, AND PROCESS: CONSTRUCTING SOCIAL RESEARCH

Research Skills and Process

The world is full of mysteries and people are always curious to find answers to questions, obscurities, and phenomena. Research is important for solving mysteries and quagmire of curious facts. All human research matters, even if we don't know. In a certain sense, every human being is a seeker for answers to mysterious problems and problems, and therefore the search is a prerequisite for finding the solution. Without research, we wouldn't have a cellular phone, internet, electric power, radio, television, automobiles, or information about human evolution or the solar system. On the university front, research is accepted as a method of psychologically organizing and reasoning about problems and problems, recording controlled observations that can point to a path to development. development of generalizations, philosophies, or theories consequential in the prediction and possibly management of events. Research establishes facts, confirms the results of previous work, solves new or existing problems, supports theorems, or develops new theories or powers up to prepare for challenges. It includes the systematic and creative work done to increase the source of knowledge, including human, cultural and social knowledge, and the use of this knowledge to project new applications.It is used to establish or accommodate truths, reiteratethe results of earlier work,resolvenew-fangledorexisting problems, support theories, or cultivate novel theories or philosophies. It is the discovery to find out the reality of events that are not visible or before being corrected in a variety of states. The main goal is to determine how or why something happened or happened.

The labor market loves research. In every field, research is a prerequisite for increasing knowledge. It helps companies to understand their difficulties and problems, propose new ideas and adapt to the changing world, keep an eye on competitors, develop new products, define what customers are looking for, improve what they do, follow developments in technology or report writing. For projects and undergraduates, they do research for theses, assignments, group projects, and experiments, and in the process, they need to develop their research skills. They must write problem definitions, think critically, make plans and schedules, collect required data using various data collection tools, analyze

information gathered, critically analyze information and finally write a report or thesis or thesis.

However, the main concern is how to build the research process, start the study and complete the research work. Imagine that you are starting your original project. The task seems difficult. Booth et al. (2008) said that the main concern is how to find a topic. Where can I find information about it? What after finding it? Even if you`ve done a research paper in a writing class, the notion of another might be even more intimidating if this time it`s the real thing. Even experienced investigatorssense worried when they confront an innovative project for a new audience. So whatever nervousness you feel, most researchers have felt it too. The only difference is that knowledgeableand skillful researchers know what lies ahead—hard work,but also the pleasure of the search; some frustration, butnewgratification; phasesof confusion, butconfidence that, in the end, it will all come together and that the result is worth the effort. Above all, experiencedand skilled researchers know how to get things done from start to finish not easily, perhaps, but professionally as the complexity of their task allows. Research skill is the ability to help find answers to questions related to a problem or a problem. It is the ability to seek, seek, collect, analyze, interpret, and evaluate information relevant to the subject under study. Research skills are the various skills and abilities to carry out any research. Analysis, research, and presentation are not just a set of formal research principles. It is necessary to use certain procedures, methods, and principles, think critically, review documents, conduct interviews, use questionnaires and any other data collection instrument to collect data, analyze the collected data, both qualitatively and quantitatively, recognize or eliminate existing knowledge, report research succinctly and accurately.

A research project can be an extension of previous work in the field. Research projects can be used to deepen knowledge. In the example of an academic research project, they could be used to enhance a student's research capacity in preparation for future work or reporting. To test the appropriateness of tools, processes, or experiments, research can replicate elements of previous projects or the entire project. The important goals of basic research (as opposed to applied research) are to document, discover, explain, or research and develop methods and systems to advance human knowledge. On the other hand, basic research is more theoretically based on the point of view of creating theories or correcting previously established notions and filling gaps in the field of knowledge. Research approaches depend on epistemology, which varies widely both within and between the natural and human sciences. There are many forms of social studies: humanities, arts, economics, society, culture, commerce, marketing, research practice, life, technology, etc.For social scientists, the dynamic question is "What is social research?" "How it is built?", the difference

between social research and research in the natural sciences, ethics, and ethics of research that researchers must follow.

It is necessary to understand how social research as a whole is constructed to represent social life using social theories, data collection procedures, data analysis, and methodical presentation. Social research focuses on the questions e.g. how does "society" work? What constitutes "culture"? These are questions that can help us understand today's most pressing problems - but how should we answer them? It is also important to understand the methods used by social scientists, the types of methods that researchers tend to apply, the context in which certain research methods are used, and the advantages strengths, weaknesses, and ethical implications of the study. It is a process in which certain events are presented to people as facts that already exist but people are not aware of them. It is the intellectual application of matter investigation used to discover, explain, and develop methods and systems to advance human knowledge. The method of social research is a fundamental part of the social sciences, providing a means to advance the development and advancement of the mind.

Method and methodology are two distinct terms. The method mainly involves data collection tools or techniques such as interviews, and questionnaires. However, a methodology has a more logical meaning and refers to the approach or model that underlies the research. This would include, for example, positivism, post-liberalism, criticism, postmodernism, etc. Indeed, the status of "science" is often justified by attachment to the technical characteristics of the research method, while the term "science" itself carries with it notions of the field of researchthat only those who have undergone training can access to comprehendtheir inner workings. Theories, methods, and methodologies are part of the problems and processes that surround and inform the discipline. However, these differences continually lead to disputes, as well as confusion, about the nature of the research and the methods it should use to pursue its goals. However, all rigorous science-based disciplines are subject to strict scientific codes and ethical codes.

Research is normally funded by funding agencies including organizations, agencies, companies, institutions, etc. Scientific research can be subdivided into different classifications according to their academic and application disciplines. As a practice-based activity, research can take a concrete shape when creative works are considered in both the research and the object of the research itself. The research itself is broad-based, focusing on the required information through the methodology of the project, discussion, and results.

The term research is derived from the French word *recherché* from *rechercher,* to search closely or seek to seek, where "chercher" means "to seek or search". Therefore, the term research is a combination of the two words "re" and "research", which teaches new things and helps to adapt and grow from the old. Although research has been defined in different ways, there are similarities, there does not seem to be a single, universal definition that is accepted by all who participate in the study. Research is widely recognized as intellectual investigation and experimentation aimed at uncovering and explaining facts, modifying accepted theories or laws based on new facts, or applying theories or this new or revised law in the real world. It is a movement from the known to the unknown because it is a journey of discovery in a new, innovative, and revolutionary way. For Best and Kahn (1998) research may be defined as the systematic and objective analysis and recording of controlled observations that may lead to the development of generalizations, principles, or theories, resulting in prediction and possibly ultimate control of events. Slesinger and Stephenson (1930) define research as the manipulation of things and concepts to verify knowledge.

Kothari (1990) assumed that research is the search for knowledge by an objective and systematic method to find a solution to a problem. Bhushan and Sachdeva (1999) defined research as a systematic and objective effort used to study a problem to infer general principles. Essentially, the organized drive to advance new knowledge is research. Similarly, Joshi (2002) states that research is an attempt to find new facts, knowledge, and principles scientifically. It is the discovery of truth through investigation, observation, comparison, and experimentation, therefore an investigative art that requires research skills and the elaboration of the whole research process. Towards the search for knowledge and truth, research is a systematic scientific search for pertinent information on a particular subject. An innovative systematic activity undertaken to increase social, cultural, and knowledge sources and the use of this knowledge to design new applications, and research construction including a process of steps used to collect and analyze information to improve understanding of a topic or problem. It consists of three steps: asking a question, collecting data to answer the question, and presenting the answer to the question. The research follows the following path:

- → **Problem**: related to the thing observed and sought.
- → **Observation**: perceiving the whole picture or what we call data.
- → **Hypothesis**: construct a hypothesis based on observations or data.
- → **Experimental**: testing a hypothesis based on observations or additional data.
- → **Theory**: construct a theory after finding a constant result.

→ **Dissemination**:propagation of results.

Research is essentially an organized investigation that seeks out facts using justifiable objective methods to explore relationships between variables and infer outcomes, general principles, or rules. It is essentially a technique of critical thinking by identifying and redefining problems, forming hypotheses or suggested solutions, collecting, organizing, and evaluating data, making inferences and suggestions, draw conclusions to determine whether they correspond to a given hypothesis. Therefore, the term research refers to an important, careful and comprehensive investigation or examination or experiment to amend an accepted conclusion, based on new facts detected. As an approach or method for discovering potential problems and finding solutions to problems, in a nutshell, we can present the basic tenets of research as:

→ An intellectual inquiry of materials to find the truth about existingor old issues and offer a new solution.
→ A new revolution in the field of existing knowledge.
→ Attempt to know new things, truth, information, etc.
→ A profound investigation on a topic to explore or modify events, theory, and applications.
→ Look for links between variables.
→ To circulate knowledge and create a theory of the event.
→ To follow a recognized, systematic, and strict process of scientific methods.
→ Efforts to systematize to obtain creative knowledge.
→ Study on both causes and effects of research.
→ Organized, systematic, controlled, experimental, and critical analysis and exploration.

To disclose what you have explored and bring the truth or correct answer before academia is research, hence research is finding out the truth, and closing the gap in existing knowledge. Research should have a scientific objective showing cause and effect relationship, and it should be guided by an ideology and guide policy or practice. Kumar (2011) has claimed that if a researcher follows a fixed criterion, it will be called research. The indispensable characteristics of research are:

- ***Controlled***: Research is an activity in which the relationship between causes and effects istried to explore. While trying to find out the relationship between cause and effect, there might be other factors affecting the relationship and maximum attempt should be made to avoid such affecting factors. On the other hand, in exploring the causality

concerning two variables, we should set up our research study in such a way that minimizes the effects of other factors that affect an outcome. A particular event is seldom the result of one to one relationship. Some relationships are more complex than others. As social science research is carried out on issues relating to human society, it is greatly challenging to discover the link between two variables and to control the impact of these variables, while this will be done sensibly humbly in physical sciences as the research is conducted in a laboratory or facility.

- ***Rigorous***: During our search, we must look closely and carefully to ensure that the procedures that follow to find a solution to the problem are appropriate and reasonable. Furthermore, the degree of consistency and rigor differs greatly between the physical and social sciences and within social sciences.
- ***Systematic***: The procedures embracedto undertake research follow a certain commonsensicaland logical sequence. The steps cannot be taken haphazardly. Some procedures must follow others.
- ***Valid and verifiable***: Whatever we conclude based on our findings is correct and can be verified (confirmed) by us and others as well in another attempt.
- ***Empirical***: The inferencesdrawn are based upon hard evidence collected from actualexperiences or observations.
- ***Critical***: There should be a serious and critical analysisof the procedures used and the methods employed is crucial to a research inquiry. The process of investigation must be foolproof and free from any drawbacks. The procedures used must be able to withstand critical scrutiny.

All methods and systems applied in an investigation should be scientific and logical. Like a physical survey or analysis, fixed and logical processes are applied to the research analysis. Brown (1992) offersthe following characteristics of research:

Table 1.1: **Characteristics of Research**

Characteristics	*Questions*
1. Systematic	Does the study follow clear procedural rules?
2. Logical	Does the study proceed in a clear step-by-step fashion, from question formulation to data collection and analysis?
3. Tangible	Are data selected from the real world?
4. Replicable	Could an independent researcher reproduce the study?
5. Reductive	Does the research establish patterns and relationships among individual variables, facts, and observable phenomena?

Based on the general characteristics of systematic rules of procedure, logical process, tangible data, reproducibility, and reducibility, research is the investigative process of collecting data, information, or statistics, discovering relationships between variables, and proving something aretrue or false or establishing new knowledge. As an advanced means of acquiring knowledge, it is any systematic, open-minded investigation aimed at establishing new facts, often using a scientific method.

How to Make a Research Scientific?

Currentscience is often divided into three main branches including the natural sciences (e.g. biology, chemistry, physics) or the study of nature in the broadest sense; social sciences (e.g. psychology, sociology, economics) or the study of individuals and societies; and formal sciences (e.g. mathematics, logic, theoretical computer science) or the study of abstract concepts. However, there is adisagreement that official science or formal science is a science because it is not based on empirical evidence. Disciplines that use science, such as engineering and medicine, are described as applied sciences. Science deals with research and is often organized by research and academic institutions as well as government agencies and corporations. The practical impact of scientific research has led to the emergence of science policies that seek to influence the scientific enterprise by prioritizing the development of commercial products, armaments, care health, and environmental protection.

Broadly speaking, science is systematic knowledge based on rigorous experimentation and fieldwork. Science comes from the Latin "Scientia", which means knowledge. It is knowledge acquired by study or practice, or knowledge that includes general truths about the operation of general laws. Based on a system of knowledge acquisition, science uses observations and experiments to

describe and explain natural phenomena. The purpose of science is to create useful models of reality. Almost all scientific investigations use some form of the scientific method. The fields of science, in general, are organized in two broad directions, with the natural sciences concerned with the study of the natural world and the social sciences with the systematic study of human behavior people, and society. The social sciences are also based on rigorous scientific research. Kerlinger (1986) argues that scientific research is a systematic, controlled, experimental, and critical investigation of proposed hypotheses about putative relationships between natural phenomena. In this context, *Scientificness* does not mean science, but it refers to a way of doing a research activity, which is a method of problem identification, collection, analysis, and concluding step by step with a logical, organized, and rigorous conclusion. Scientificness is not based on perception and speculation or assumption.

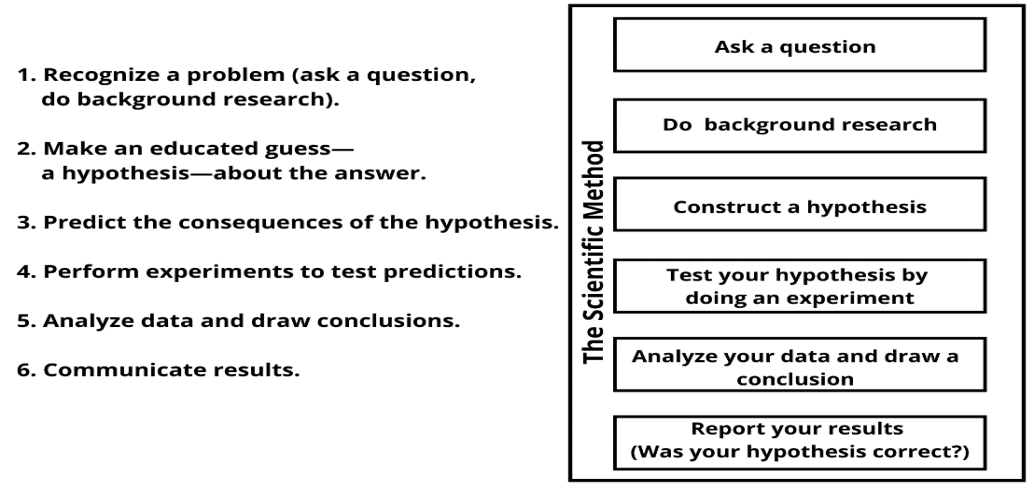
The view is universal for all research methods and techniques that apply the scientific method to participate in objectivity, using relevant concepts and describing the methodology and formula of the theory. The key goal of the study is to seek accuracy, truth,and knowledge determined by logical considerations. Typical qualities of scientific research are that it depends on experimental evidence/data and is attached to an objective. Dedication to ethical objectivity is a characteristic of scientific research. It describes the methods used and aims to clarify concepts and form theories. Scientific research will identify unusual issues, paradoxes, and/or irregularitiesbased on previous theories. It creates a new set of scientific problems for scientists to work on and suggest a paradigm or problem-solving model that facilitatesand resolves new problems and provide definitions of concepts or operations which help other scientists solve problems. Related to scientific research it is vital to keep in mind that it achieves two vital primary functions, *the development of theory* and *testing the substantive hypothesis* that is deduced from the theory.

Research is called science if it is well organized and each step is associated with others. In addition, the science spirit implies that the truth must be based on observable facts and evidence that can be observed. It should be objectively analyzed. If a study focuses on objectives and objectivity, it is called science. However, research should be impartial, without prejudices, and based on complete evidence. In scientific research, there is the usage of quantitative and qualitative techniques as well as vibrant and simple language. It should be noted that methodization followed by research should be reliable. In another condition, if another researcher involves in the same search, the result will be similar to some extent. Scientific research is based on a system of ideas, a set of statements. Only logical binding and especially evidence can be used as a check, a way to assess the correctness of ideas. The purpose of scientific research is to

find an order in the chaos of natural phenomena and it tries to show the simplest and most accurate knowledge possible of natural laws. There are universal patternsand steps in scientific research. The steps of the scientific method are as follows:

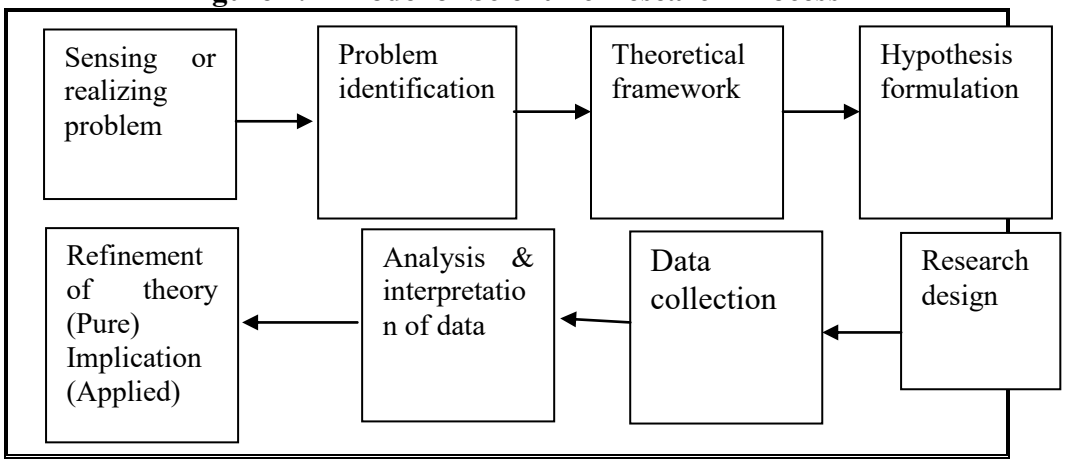
Make an observation, choose a topic of study and recognize a problem. Afterward, ask a question and make an educated guess-a hypothesis-about the answer. Predict consequences and test the hypothesis; collect data or perform experiments to test predictions; analyze data, examine the results and draw conclusions. The final step is to communicate and report the results.

Figure 1.1:**Steps of Scientific Research Method**



There is a common pattern in all scientific research which is characterized by key components specifically questions, hypotheses, experiments or tests, perceptions or observations, analyses, and conclusions. These components are interrelated steps, so they do not continuously function in the same order or within the same arrangement. Joshi (2002) illustrates the model of the scientific research process as sensing or realizing a problem, problem identification, drawing a theoretical framework, hypothesis formulation, drawing a research design, collection of data, data analysis and interpretation, purification or refinement of theory. He argues that there is a common pattern in all scientific research. He presents the following model as a common pattern in scientific research:

Figure 1.2: **Model of Scientific Research Process**



Source: Joshi, P. R. (2002).

The process of research is the preparation and procedure of numerous logical steps in conducting the research work. Each step is interlinked with other steps in a common pattern of scientific research. The process starts with the research problem at, to begin with. Then it propels in another step consecutively. For the most part, a researcher conducts investigation work within all these diverse steps.

1.1 Making Social Science Research Scientific

In routine life, people wonder about and face diverse social issues and problems, and the research allows us to understand the issue and suggest a solution to the problem. It is social science research that permits us to get the whys and howsof human behavior and suggest solutions to the issues and problems. It has to be beyond any doubt that as there are various complications in society, social orders confront social, financial, political, environmental, and other issues that require a methodical and brilliantly look to discover causes as well as find solutions to them. A social researcher should take after-settled steps of the scientific method which incorporate asking a question, forming a hypothesis or speculation, testing the hypothesis, drawing a conclusion, analyzing the conclusion, and disseminating the results. The scientific methods, as connected to social sciences, incorporate a variety of research approaches, tools, and techniques for collecting and analyzing the quantitative and subjective qualitative data which may include tests in the laboratory, field surveys, case research, ethnographic research, and action research, and so on. This will help the social scientist to get it how to interact with the social world-how to influence policy arrangement, develop systems and networks, increase

government accountability, and promote democracy and an equity-based society. These challenges, for numerous individuals around the world, are immediate, and their determination can make a tremendous difference in people's lives. Social science research gives observational information almost what the issues and encourages the provision of conceivable solutions and recommends policy recommendations.

Without discovering the true cause of a problem, its true therapy or remedy cannot be found. Since problems involve the *why* and *hows* of human behaviorwhich is unpredictable and unreliable, different methods are needed to understand and solve problems and uncover the truth. To solve various problems related to society and satisfy the thirst for knowledge, social research is essential, and to do well in social research, we must pursue a research method. Research that is based on society, social issues, and social problems is called social research. According to sociologist Bogardus (1960), social research is the investigation of the processes underlying the work of people who are part of associations. Kerlinger (1986) argues that social research is a systematic, controlled, experimental, and critical investigation of a hypothesis about putative relationships between phenomena. Young (1982) states that we can define social research as a scientific enterprise that, by logical and systematic methods, aims to uncover new and old facts and analyze sequences, interrelationships, cause-and-effect explanations, and the laws of nature that govern them. Kerlinger (1986) further describes scientific social research as a controlled, experimental, and critical investigation of postulates about putative relationships between various phenomena.

Social research could be a methodical investigation that looks to discover social facts by impartial and provable strategies to explore connections between social facts and to infer social facts, general principles, or laws of society. It is essentially a method of critical thinking that aims to define and redefine problems, form hypotheses or propose solutions, collect, categorize and evaluate data, make inferences, and make decisions and conclusions to determine whether they correspond to the formulated hypothesis. To a large extent, social research refers to a critical, careful, and comprehensive investigation or examination or experiment of social events and problems to modify an accepted conclusion, based on newly discovered facts. As a systematic module (method) undertaken by social scientists to solve problems related to society, social research methods can be divided into categories. Research can be qualitative or quantitative, based on the type of information sought through the research activity. Qualitative and quantitative ratings or classifications are based on three categories:

Purpose of the study.
How are variables measured?
How is the information analyzed?

It is qualitative social research if the purpose of the research is mainly to describe a situation, phenomenon, problem, or event. Here, data is collected through the use of variables that are measured on a nominal (good, better, satisfactory, bad, etc.) or ordinal (first, second, third) scale, etc.) i.e. qualitative scale; if the analysis is done to establish the variability of a situation, phenomenon/problem without quantifying it. Describing an observed situation, listing the history of events, presenting different opinions, and a passage (session) on a question are examples of qualitative research. Quantitative methods, on the other hand, deal with social phenomena through quantitative evidence and rely on a statistical analysis of many cases (or deliberately designed treatments in an experiment) to create a valid and credible joint statement. Quantitative methods involving empirical parameters deal with the determination of behavior with the application of natural sciences. It is based on deductive approaches with the pursuance of scientific laws based on a realist perspective. Both qualitative and quantitative methods have strengths and weaknesses. But the choice of method largely depends on the main objective of the study, the discipline, and the theoretical position of the researcher. These methods observe different realities or different aspects of reality.

Many methods are used by social scientists to analyze a wide range of social phenomena; from census data from millions of individuals to in-depth analysis of an agent's social experiences; from tracking what's happening in contemporary societies and streets to investigating people's immediate problems. Methods derived from classical sociology and statistics have provided the basis for research in other disciplines, such as media studies, market research, political science, and more. Social research involves theory generation, operations (measurement of variables), and observations (collection of factual data to test hypothetical relationships). Based on social research, social theories are written in terms of variables, ortheories that describe logical relationships between variables. Variables are a collection of logical properties, with everyone being the bearer of those variables (e.g. gender could be a variable with two properties: male and female).

Variables are divided into independent variables (data) affecting dependent variables. For instance, in a study on how different doses are linked to the severity of the symptoms of the disease, a measure of the severity of the symptoms of the disease is a dependent variable, and the management pharmacy or the administration of the drug in specific doses is the independent variable. Researchers will compare diverse values of dependent variables (severity of

symptoms) and try to conclude. Social scientists are divided into camps that support special research techniques. Their dispute involves the historiccore of social theory (positivism and anti-positivism; structure and agency). Although very different in many aspects, quantitative and quantitative approaches are related to systematic interaction between theory and data. The choice of the research method is still reliant on and mostly depends on what researchers intend to investigate. For example, a researcher concerned with drawing a statistical generalization across an entire population may administer a survey questionnaire to a representative sample population. On the other hand, a researcher seeking a complete contextual understanding of a person's social actionscan choose an ethnographic observation or an open-ended interview. Studies willusually combine, or '*triangulate*', quantitative and qualitative methods as part of a multi-strategy design. A quantitative study can be performed to obtain statistical models or a target sample whereas an excellent form of qualitative observation of ethnographic participants is practiced in social research when a group of social scientists….

- Put up and occupy an experimental community.
- Become a part of the experimental community.
- Observe and record behaviors.
- Experimentally test possible solutions to social problems.
- Deliberately adopt experimentally validated solutions, and
- Publish reports about the evolution of culture and all happenings.

Theory, study techniques, and exercise are taken into consideration to be in the middle of the expertise and conceptualizing social sciences research. Social science disciplines like anthropology and sociology emphasize the importance of this hyperlink, a challenge thatcan be irritating for researchers who want to get to grasp some actual explanations for the things which *happen—in society, and among the people.*Explanations also are as essential as the reasons themselves. For instance, if a researcher makes use of Marxist theoretical frameworks, he's going to search for conflict. If the researcher is operating guided through the theoretical framework of the Functionalist perspective, he's going to search for consensus-associated issues, Structural functionalists the structure and function, and Interactionists just *look*! Once the researcher has selected his frame, he finds out that along with the set of ideas that link together to explain society/people—theoretical concepts—comes a hard and fast of methods wherein to use those standards and techniques in studies.

The relationship betweentheory and methods is genuinely pretty simple. If the researcher takes the positivist viewpoint, that the structure of society is the place where explanations for social behavior can be found, the researcher may not be concerned with the feelings, emotions, and experiences of human individuals.

To positivists these are not important –they are simply a product of the workings of the larger society. To study society means to study social structure to understand what makes it work. The logical, scientific analysis of numerical data, gathered using sources such as official statistics, questionnaires and interviews provide the raw material which can then be examined and explained. Structural, positivist believes that individuals are determined, shaped, and molded by the larger society, and to understand that shaping process, the researcher must analyze the quantitative data. The large-scale macro analysis will provide knowledge that is on par with natural science. Positivists consider that interactionists examining human interactions atthe micro-level are not proof in the scientific sense because of the small sample. However, from the interactionists' point of view, the reality of social behavior is to be found when human individuals *interact* and create their own social experiences. To understand these, the researcher must attempt to investigate the meanings and beliefs of individuals acting together.

Types of Methods

Research explores all stages of the research process and includes both quantitative and qualitative methods. By nature, humans are always curious to see, hear and learn about the world around them. However, they differ in how they interpret objects and events in the world, and therefore their actions also differ. Subjectivity is an integral part of everyone's decision-making process, whether intentional or unintentional. Qualitative research is mainly applied in anthropology based on this premise. Qualitative designs emphasize understanding social phenomena through direct observation, participant communication, or text analysis, and may emphasize contextual and subjective correctness rather than generality shared. There are at least five principles of qualitative research and analysis (Ulin et al. 2002) which are:

- The experience of people differs in experiences and understandings of reality; how participants define a situation may not reflect assumptions made by the researcher.
- A social phenomenon cannot be understood in its context.
- Theory guides qualitative research and is the result of it.
- Exceptional cases may yield insight into a problem or new leads for further inquiry.
- Understanding of human behavior emerges slowly and nonlinearly.

Quantitative methods, on the other hand, are associated with statistics in numerical form. Quantitative designs address social phenomena through quantifiable evidence and often rely on a statistical analysis of many cases (or deliberately designed treatments in an experiment) experience) to produce valid

and reliable general statements. Quantitative methods are used in sociological research or economics, management, etc. Both qualitative and quantitative methods have their advantages and disadvantages. However, the choice of method largely depends on the main objective of the study, the discipline, and the theoretical position of the researcher. These methods observe different realities or different aspects of reality and there is a dualism between the two. The detailed analysis of these methods is as follows:

Table 1.2:**Qualitative and Quantitative Methods**

Qualitative Methods	Quantitative Methods
Qualitative data (Gender, class, belief) Natural settings Search for meaning Rejection of natural science Inductive approaches Identification of cultural patterns Idealist perspective	Quantitative data (Height, age, weight, income) Experimental settings Identification of behavior Adoption of natural science Deductive approaches Pursuance of scientific laws Realist perspective

Qualitative methods

- Cultural Immersion, Ethnography
- Analytic induction, Archival research
- Focus group discussion, Historical method
- Life history, Longitudinal study
- Participant observation, Morphological analysis
- Semi-structured interview, Structured interview, Unstructured interview
- Textual analysis, Comparative Method, Cross-cultural Comparison...
- Survey Research, Linguistic Analysis
- Archaeological Analysis, Critical Ethnographic Methods
- PRA and RRA
- Media Analysis, Historical Analysis, Ethno History
- Historical documents, old letters, journals, diaries, census records, government papers, etc., to supplement observation
- Auto-ethnography: Making the Personal Political
- Genealogies (families)
- Narrative Inquiry: Multiple Lenses, Approaches, and Voices
- Analyzing Talk and Text, Content Analysis
- Foucault's Methodologies: archaeology and genealogy
- Appreciative Inquiry, Process Documentation Research

Quantitative methods

- Interview
- Observation
- Questionnaire
- Content Analysis
- Survey
- Chi-square test
- Cluster analysis
- Regression analysis
- Spearman's rank correlation coefficient
- Statistical surveys and questionnaires
- Student's t-test
- Quantitative marketing research
- Focus Group Discussion(FGD)

Researchers encounter policy issues at every stage of their work and should make honest efforts to identify claims and potential ethical conflicts in advance when preparing research plans. Social research is also a technical and problematic task; therefore, it must be guided by a certain morality. The main assumptions of ethics in social research are:

- **PAC***:* Privacy, anonymity, and confidentiality
- Transparency in research and economic matters
- Voluntary participation of the studied group
- No physical or psychological harm to respondents and field area
- Integrity

Schools of Thought in Social Research

Social research is a mirror image of our opinions and prejudices: it justifies, disproves, organizes, or constructs our theories and creates knowledge. Evidence can challenge not only our beliefs but those of society at large. This is where the debate about objectivity in the social sciences begins. Bernstein (1983) states that if our values do not enter our research, they are objective and above all criticism, they are often interpreted as objective. Objectivity is thus defined as the fundamental assurance that there is or must be a permanent historical matrix or framework that we can ultimately call upon to determine the nature of rationality, knowledge, truth, goodness, justice, and judgment. Social research is congruently concerned with the relationships between ideas and evidence. Ideas help social scientists understand the evidence, and researchers use evidence to expand, modify, and test ideas in different situations. The probability of deriving

different types of meanings from the same sort of social situations has contributed to generating debates on the positivists and the interpretative line of discussions of human relations (Pandey, 2008).The probabilities of deriving different types of meanings from the same sort of social situations have given rise to different schools of thought in social sciences. A school of thought is possibly a specific way of thinking or intellectual tradition. It is the point of view of a group of people who share common characteristics of opinion or viewpoint of a philosophy, discipline, belief, social movement, cultural movement, financial matters, craftsmanship movement, feminist, the environmental movement, etc. The major schools of thought in social research are as follows:

■ Positivism

Noting the circular dependence of theory and observation in science, and scientific classification, Auguste Comte (1798-1857), a French mathematician who first described the epistemological view of positivism, can be considered the first philosopher of social science in the modern sense of the term. For him, the physical sciences had necessarily to arrive first, before humanity could adequately channel its efforts into the most challenging and complex *Queen Science* of human society itself. Auguste Comte was impressed by the achievements being made in natural sciences such as physics, chemistry, and geology; consequently, he argued that there are three crucial stages in the evolution of human thought (cited by Francis & Morgan, 1989 in 'Sociological Thought: from Comte to Sorokin'). The first stage, which he called the *theological* or fictitious stage, explained events as god's work, for example, thunder occurs when the god is angry, or famines are the result of not worshipping the god enough. The second stage was characteristic of the middle ages with explanations involving slight emissions from divine and mystic influences. He called this the *metaphysical* stage. The third stage was grounded on the evidence of the previous two hundred years which appeared to show that the natural world is subject to the rule of definite laws that can be observed through experimentsand the collection of *positive* facts.

Auguste Comte's daringavowal was to take this one stage further and state that the systematic collection of facts and the search for laws should not be limited to the natural world. Everything, even human society, obeys the laws of behavior. He foresaw a new science of society that would discover these laws and become the queen of all sciences. In anticipation, he called this as yet unsearched science 'Sociology'. When all human thought was based on science then the positive stage would be complete (Barnard and Kirby, 2004). Comte made an effort to unite psychology, history, and economics through the scientific understanding of the social realm. He proposed that social ills could be remedied through

sociological positivism, an epistemological approach. This approach asserts that we can, to some extent, control our future rather than have it controlled, like the molecules, by a change in our environment. Humans can 'act on', as well as behave in 'reaction to', our social environments. Some experiments in the natural sciences take the form of changing the environment and considering how people react to it. The problem here is one of controlling the inputs into experimental situations to see what changes cause particular alterations in behavior. There are problems with this approach, hence the idea of 'quasi-experimentation' as an approximation toward this model of research. In some approaches to evaluation research, for example, a group is chosen that will be subject to the program which is to be assessed. This treatment group will then be compared to those who have not been subject to the program. However, it is necessary to raise questions- is the social life like that? Are our experiments in a laboratory artificial and do doing so not reflect the problems, decisions, and inconsistencies involved in society?

Sociologist Emile Durkheim overruledmuch of the detail of Comte's philosophy, he retained and refined its method, maintaining that the social sciences are a logical continuation of the natural ones into the realm of human activity, and insisting that they may retain the same objectivity, rationalism, and approach to causality. Durkheim argued: that *our main goal is to extend scientific rationalism to human conduct... What has been called our positivism is but a consequence of this rationalism* (Durkheim and Simpson, 1964). For the researchers leaning toward positivism, the social scientist ought to study social phenomena 'in the same state of mind as the physicist, chemist or physiologist when he probes into a still unexplored region of the scientific domain'.

Objectivity is then definedas being the same as that of natural science and social life may be explained in the same way as natural phenomena. This tradition may therefore be characterized in terms of the prediction and explanation of the behavior of phenomena and the pursuit of objectivity, which is defined as the researcher's 'detachment' from the topic under investigation. The results of research using this method of investigation are then said to produce a set of 'true', precise and wide-ranging 'laws' (known as covering laws) of human behavior. We would then be able to generalize from our observations on social phenomena to make statements about the behavior of the population as a whole.

Broadly, positivism explains human behavior in terms of cause and effect with empiricism as the feature. If positivism aims to collect and assemble data on the social world from which we can generalize and explain human behavior through the use of our theories, then it shares with empiricism the belief that there are 'facts' that we can gather on the social world, *independently* of how people interpret them. As researchers, we simply need to refine our instruments of data

collection so that they are neutral recording instruments much as the ruler measures distance and the clock, time. The fundamental difference between empiricism and positivism, however, lies in the realm of theory. Data within positivism is theory-driven and designed to test the accuracy of the theory. Empiricism, on the other hand, is a method of research that has not referred explicitly to the theory guiding its data collection procedures. It is thus characterized ‘by the catchphrase “the facts speak for themselves (Bulmer, 2016).

Giddens (1974) noted that the positive attitude in sociology attempts to make deliberations based on the following three types of connected suppositions. They include that, (a) the methodological procedures of natural sciences may be directly adapted to sociology. Human subjectivity does not create any barrier to treating social conduct as objects in the same way as are treated in natural events. (b) Sociological analysis can help to “formulate laws or law-like generalizations of the same kind as those which have been established concerning natural reality.” (c) “The findings of sociological analysis do not carry any logically given implications for practical policy or the pursuit of values.”

The positivist philosophers do not pay any attention to taking into account the role played by humans as subjects in the process of forming their social situations. Their arguments are based on the conception that social relations are given like natural events. The role of social scientists is to describe the objective content observed in these relations. The sociologist, even if it is a human subject, holds a neutral stand in the process of collection and interpretation of data available in the empirical field for the understanding of observed reality. It remains a neutral observer and a technical person unaffected by any personal values and moral prescriptions. The theoretical arguments made by scholars like Comte, Durkheim, Parsons (1951), and others or those who are influenced by their ideas may be taken as examples of positivists' line of sociological thought.

Those who consider sociology as an interpretive science raise questions on positivist assumptions. They hold the perception that humans are the conscious actors of society. Their conduct is directed by some interests or objectives. They proceed in these behaviors through conscious evaluation of their situations. They derive through their experience the standards used for the assessment of those situations. Any changes in those situations bring changes in the behaviors of people and in the standards used by them to evaluate these changed situations. Social relations are, therefore, neither given nor static phenomena. They are created by interest-based interactions of people and are changed with changes in those interests and related interactions. An assignment of natural attributes to the subjectively created social situation has made many implications for the type of

knowledge generated by adopting the positivist brand of thought and methodological principles.

Contrary to positivists' analysis, the supporters of the interpretive approach have built up their arguments by catching upon the limitations of positivist claims. They hold the opinion that society is a constructed reality. The members who participate in the construction of this reality assume different types of interests, statuses, and roles. As a result of these differences, the meaning of social reality perceived by these members also appears not uniform. The role of sociology is to explore these multiple meanings of society held by different types of its members. A plain description of the objective aspect of society remains unable to explore the different types of perceptions held about it by people. A meaningful discussion of social situations requires scholars to find connections between the objective elements of social settings and the interests or compulsions of different categories of people who come together to form those relations. It would be a Herculean exercise to attempt for exploring the meanings of all levels, forms, and dimensions of social relations held by different members of society. What is usually done by individual scholars is to select the social context of their choice and interpret its meaning. They use methodological procedures which are compatible to generate data required for their discussions. Sociological analysis, is hence, a value-based exercise. However, the scholars have to focus their discussions on those areas of social relations which are socially much important in the analysis of social events in sociology. The sociological models also represent different types of meta-theoretical models. They orient to understand societies in multiple ways either through testing the hypothesis derived for the specific type of relationships between different levels of social units or through seeking the meaning of these relationships by interpreting them in the contexts of objectives of the actors involve in these connections. Both ways of these discussions, however, require some data collected in field-based conditions.

■ Realism

Roy (2008) argues that usually to be a realist in philosophy is to be dedicated to the lifestyles of a few disputed sorts of being (e.g. fabric objects, universals, causal laws; propositions, numbers, probabilities; efficacious reasons, social systems, ethical facts). Realism has a prolonged past and can be related to the works of Karl Marx and Sigmund Freud. Under this thought, the tasks of researchers are to organize one's concept to grasp itsessential features successfully. If researchers simply content themselves with studying everyday social life, such as conversations and interactions between people, this will distract them from an investigation of the underlying mechanisms which make those possible in the first instance (Sayer, 2000). The task of researchers within

this tradition is to uncover the structures of social relations to understand why we then have the policies and practices that we do. Similarly, Sigmund Freud argued that our consciousness was determined by our subconsciousness.

The notion of Realism suggests that the knowledge people have of their social world affects their behavior and, unlike the propositions of positivism and empiricism, the social world does not simply 'exist' independently of this knowledge. Given this, causes are not simply determining actions but must be seen as 'tendencies' that produce particular effects. Yet people's knowledge may be partial or incomplete. The undertaking of social research, consequently, is not merely to gather observations on the social world, but to elucidate these within theoretical frameworks which examine the underlying mechanisms which inform people's actions and prevent their choices from reaching an ultimate result. Realism must utilize a different definition of science than positivism (Sayer, 2000). In particular, a realist conception of social science would not essentially take for granted that we can 'know' the world out there independently of how we illustrate it. Access to these different layers of reality is the task of a realist research program and reveals to the notice of people how they affect their actions in a situation of dialogue and cooperation. This is a Realist philosophy, in contrast to other approaches to assessment. Positivism does not pay a great deal of attention to the detail of people's inner mental states. However, Realism, on the other hand, may refer to people's consciousness in so far as it reflects the conditions under which they live, how structures are reproduced and their desires and needs are frustrated. Realist focuses on the *meanings* that people give to their environment, not the environment itself.

■ Idealism

The "idealist school of thought" highlightsthe human construction of the social world through the realm of ideas, not because we are simply conditioned or created by it. They argue that our actions are governed not by cause and effect, as is the case with molecules in test tubes, but by the rules, we use to interpret the world. When the natural sciences deal with matter that is not "conscious", scholars of this idea argue that its methods cannot deal with social life and should therefore be excluded from research. Talking about causation cannot be applied to the study of social life for those who contemplate, interpret and act in their environment. For these reasons, the methods of the social sciences are fundamentally different from, but not inferior to, the natural sciences. It is the world of ideas that interests us as social scientists. Such a view holds that human activity is not a behavior (adaptation to material conditions), but an expression of the meaning that people give (through language) to their behavior. themselves (Johnson and Johnson, 2017).

There are rules in social action that we make society, we understand and recognize ourselves. Of course, the rules are often broken and can also be interpreted differently. For this reason, we cannot forecast human behavior, but people always act as if they are following rules, which makes their actions understandable. People are constantly involved in the interpretive process and this is something we should learn. In other words, researchers should focus on how people produce social life. Social life can only be understood through examining the selection and interpretation of events and human actions. Many scholars have also attempted to merge some aspects of the main views. For example, the work of Pierre Bourdieu (1992) was defined by empirical concerns and thus developed a series of "tools" for studying and thinking about the social world. Giddens (1974) argues that our everyday actions make sense for us, but they also reproduce the structures that both facilitate and constrain human action.

■ Postmodernism

Recently emerging, postmodernism is a movement of thought that explains and analyzes various areas of today's global society, economic, social, cultural, artistic, linguistic, literature, ideals, etc. from a new angle. It is essential to the modern socialist approach, which presents synthetic ideas about the future society while emphasizing human values. Many scholars have helped accelerate the pace of the postmodern movement. In the 1960s, Leslie Fielder and Ihab Hastab helped give impetus to postmodernism through a movement of thought in the fields of architecture, music, dance, and more. Postmodernism is a reform movement. The movement of postmodernism began with architecture, as a reactionary movement against the cognitive blindness and hostility present in the modern movement. Postmodernism criticizes modernism by emphasizing anarchism in modern thought and questioning the benefits of its philosophy. Postmodern architecture began to react against the quasi-totalitarian qualities of modernist thought, favoring individual taste and diversity over objective and ultimate truths or principles. It is this criticism, skepticism, and subjectivity that define postmodern philosophy. Postmodernism deals with changes in society involving a revolution in thought, behavior, art, culture, and architecture. Kellner (1990) argues that the postmodern moment has come and perplexed intellectuals, artists, and cultural entrepreneurs to wonder whether they should hop in the caravan and join the carnival, or sit next to them until the new fashion (fashion) disappears in the whirlwind of cultural fashion.

As a broad-spectrum critical conceptual view of modern society and all fields of human achievement, the basic concepts and premises of postmodernism are varied and complex. Postmodernism is often described as an orientation in the

philosophy of science that denies the possibility of acquiring actual knowledge of the world. It argues that what we know about society is our construction, which we must deconstruct. The big stories (development, science, freedom, romance, truth) are heroic myths that legitimize the existing social order. In anthropology, these reflections have significantly influenced our understanding of reflexivity and our critique of Western hegemonic ideas. Postmodernism has at least two meanings:

1. As a descriptive label for a particular historical era, characterized by fragmentation of overwhelming Western myths and collage-like assemblages of meaning (in this sense, postmodernism is related to such terms as "late capitalism" and "post-industrial society").
2. As a term for the above-mentioned scholastic and artistic schools, which consider fragmentation and collage (arbitrary collection) as esthetic or intellectual ideals. It is thus conceivable to agree that a postmodern historical era has arrived, without subscribing to postmodernism as a show of scholarly inquiry.

The authenticity of the emergence of a post-modernist world has inevitably set up a new agenda for the social sciences (the agenda of postmodernism and its theoretical stance within and towards this world) since the existing one and its whole set of concepts, assumptions, aspirations, method is no longer relevant. Thus, its foundations lie in the investigation of programmatic attempts to control and direct the highly modern world. Post-modernism involves a revolution in thinking, behavior, art, culture, and architecture. It emphasized the re-explanation of the existing social theories, a re-explanation based on modern reality and thus it is an ideological movement. Postmodernism shares with feminist relativism the faith that knowledge is both local and contingent and there are no standards beyond particular contexts through which we may judge its truth or falsity. Therefore, it is important to note that one does not necessarily have to become a postmodernist to accept some of its insights regarding the changing times through which we are living. Postmodernism is frequently used as a convenient label around which to base a series of observations on contemporary issues (Bauman, 1997). Postmodernists are anti-foundationalists. Whether conversing on implosions of meaning with the consequence that the world becomes empty or devoid of any meaning, or of the computer age and the severing of the link between knowledge and legitimacy (Lyotard, 1993), or of the potential for dialogue within a liberal consensus in which scientific claims to the truth about the social and natural worlds have a little place, postmodernist exist the same underlying tendency: that is, that there are no universal standards against which science may lay claim to validate its standards.

■ Feminism

The feminist movement, argues that more and more women are prevented from understanding social relationships because men, knowingly or for some other reason, oppose their aspirations. Men's ideas and practices reflect the prejudices that define society and science according to specific masculine values. Then not only the objectives of the research will not be accomplished, but also its results will distort the social world. Science reflects some of the views of women by providing them with a mantle of science, nothing more than prejudice. The view that male values are dominant is the starting point for scientific criticism of feminism. Women and their fundamental contributions to socio-cultural life have been marginalized and this is reflected in research practice. Scientific norms convey and mask the symbolism of male superiority over women and mimic the desire to control the social and natural world. When women's roles are considered in social life, they are characterized as submissive and emotional. This hypothesis has long been challenged by groups of women. Feminists hold that the position of women in society is not a natural phenomenon, but a social, political, and economic product that is reflected and perpetuated by natural bias. taste of "science" (Harding, 1991).

According to feminist critics, this myth persists in economics, politics, sociology, social policy, and other social sciences, like the natural sciences (Dale and Foster, 1986; Stanley and Wise 1993). For example, in early studies of family and work, before feminist studies had some impact on mainstream practices, women were "wives", "mothers" or "housewives" ". Feminists believe that social research often focuses selectively on the public domain: men who paint, men who think about the world, men who make money, and those who shape our fate. Malinowski (1922) asserted at the beginning of the 20th century that the history of mankind is the history of men embracing and kissing women. If women's contributions are recognized, it is "the power behind the throne", the "boss of the house" or what has been described as "living room manipulation". In research on the world of work, researchers function according to definitions that remain unchallenged and so it is clear that sex discrimination continues in the workforce. Feminism, while correcting the class-based accounts of research, has faced similar criticisms as research in general, for its neglect of the issue of race. Researchers have documented how sexual and racial stereotypes cut across each other (Acker, 2006).

Associated with the abovementioned schools of thought in social research, the key perspectives in social research are diverse. Positivism’s approach is based on the scientific notion with the idea that social science ought to reflect the aims and methods of natural science however the assessment of different methods clarifies that social research seems less objective compared to natural sciences.

Realism's notion is that knowing the people have of their social world influences their behavior, and feminist criticisms of the foundations and aims of science as being male-centered and hierarchical, finishing on a critique of research practice as ethnocentric and racist. The multiple discussions themselves are complex but no less significant than that. However, all these schools of thought or perspectives do not simply dictate the nature of research itself, or how it is held out; even though the issues will inform how the aims, methods, and process of social research are measured.

1.2 Real-world Social Research

As an investigation, research is the fumbling around for knowledge, or as any systematic investigation, with an open mind, to establish fresh facts, usually by using a scientific method. In our everyday life, we inquire and wonder aboutvariedissues and matters. Using our sense and inquisitive knowledge background we explore the reasons behind any issue. And it is research as we are searching for the reasons behind the issues. Researches are extremely relevant in day-to-day life. In our daily life, we face numerous problems, and the research knowledge and the solutions to the problems emerging from research are becoming very useful and practical. Researches are and can be performed in diverse sectors especially related to issues and problems which are embedded with our routine life, cognitive, social-cultural involvements, etc.

Focusing on diverse *social and cultural ills* (problems) a narrow attitude to social research practice supports the idea that theory, ethics, values, and methods of social research are distinct topics, and those researchers, despite living and participating in the societies that they study, are somehow distinct from the social world which is the object of their investigations. Nevertheless, the findings of their studies may be extremely helpful to society and the people living there.

In having an understanding of debates and the applicability of different methods of research and the implications of research findings on society, improved research and more inquiring and confident researchers will be more productive. Issues and methods cannot be simply separated and hence researchers will produce a more systematic understanding of the social world by being aware of problems, their implications for research, and applications of research findings on society and day-to-day life. Researches are a part of everyday life and research can be accomplished in everyday life situation. It means researches are also very much embedded inthe everyday life of the commoners. There is nothing ordinary about the ordinary, anthropologists claim. That is, if by ordinary we mean usual, nevertheless, members of every culture believe that their way of doing things is normal.

If we look at the world from the viewpoint of people living in a particular society, we can without difficulty point to the ordinary pleasures, rituals, and taboos that the culture associates with its food. French anthropologist Claude Levi-Strauss studied what people ate and how different cultures prepared their food, through their myths, to identify the underlying structures of human thought. In every culture, he tells us in *The Raw and the Cooked* (1964), people put the food they eat into three broadly defined categories, two natural (raw and rotten), and one mediated by the cultural intervention (cooked). To help visualize the relationship, Levi-Strauss imagines a "culinary (cooking) triangle".

According to Levi-Strauss, people spend most of their time in almost every culture turning nature into culture, the raw into the cooked. However, even when they value culture over nature, they frequently break their own rules, defying their categories. Cultures may favor cooked food over raw and still prize delicacies that are uncooked. A traditional meal in India and Nepal, for example, could easily begin with a glass of cold water (raw) for washing hands, followed by traditional food items like *Dal (Lentil), Bhat (Rice), or Roti (Chapati), Tarkari/Sabji (Vegetable)* cooked for hours, and end with a selection of (rotten) curd and betel nuts, etc. Still, cultures make choices and are favored by the people belonging to that culture, and hence, research can be made on such trivial issues which reserve a major role in the daily life of the people.

Research and everyday life are interrelated and have concerns with diverse issues. Young (2002) squabbles that one main question for concern is in the main, *with what do social researchers concern themselves*? *On what general assumptions do they base their research*? And briefly stated: *Research for what*? We can forward the answer as…. research for solving the problems of everyday life. Working out the practical tribulations, grievances, and everyday trivial issues is the answer. From complicated topics to trivial issues, for example, eating and sleeping may be researchable topics. For example, prominent female anthropologist Mary Douglas (1966) in her highly praised study of Kashrut, tried to make order out of the dietary practices of Jews, focusing, in particular, on two central concepts in Leviticus: *tehvel* and *kadosh*.Studying everyday life would be a completely strange undertaking, unable even to grasp anything of its object if the study is not specific to analyze and transform life.

Sociologists are only too inclined to exclude from everyday life things that happen to them every day, and to transfer them to separate and supposedly superior spheres. In this way habit in all its forms — beginning with the habit of handling a few *professional* concepts (concepts produced by the division of labor) — masks reality behind privileged conventions. The reality of an observable entity designated by the term everyday life stands a good chance of

remaining hypothetical for many people. Indeed, the most outstanding feature of research and everyday life is not the fact that it has not yet discovered anything, but the reality that the very existence of everyday life is very crucial for the comprehension of social-cultural processes and people's behavior in daily life.

Research in everyday life is embedded with problem-solving and decision-making activities for all and everyone—maybe a common man or an elite, a manager, etc. Sekaran (1992) identifies the benefits of research knowledge to managers as follows:

- Identify and solve small problems in the work setting.
- Know how to discriminate good from bad research.
- Appreciate and constantly remember the multiple influences and multiple effects of factors impinging on a situation.
- Take calculated risks in decision-making, knowing full well the probabilities attached to the different/possible outcomes.
- Prevent possible vested interests from operating in a situation.
- Relate to hired researchers and consultants more effectively.

Everyday life is different in different places. For example, it would be interesting to study the workers as guinea pigs who have probably been infected with a *virus* of everyday life because they, having no access to specialized activities, have no life *except* everyday life. The manner of investigating the common people in search of an unusual uniqueness of everyday life reveals a desire to hide behind a development of thought based on the separation of the artificial, fragmentary areas to reject the ineffective, rude and worrying concept of everyday life. Everyday life is not the whole thing ---even though it is overlapping with specialized activities such that in a sense research and researchers are never outside of everyday life. Issues of everyday life are always a hot cake issue for research study and have to place everyday life at the center of everything. It should be remembered that every task (research project) begins from it and every achievement returns to it to get its real significance.

Practical life is the measure of all things: the fulfillment, and non-fulfillment of human relations; the use of lived time; creative testing; and radical politics. What builds for the complexity of distinguishing an environment of *everyday life* is not only the reality that it has already become the perceived meeting ground of empirical social science and a conceptual explanation but also the reality that it turns out to be the stake or venture in any radical revitalization of culture, society, economy or politics. Regardless of being scientists, social researchers, like most social beings, are curious about everyday social life. However, improving the quality of everyday social life is a significant goal since

the pools of ideas structures much philosophy and much telling about society, by social scientists, and by others.

1.3Social ScienceResearch Goals and Objectives

In many ways, social science researches are different from natural sciences. However, both social science and natural science researches depend on scientific research methods by relying on the application of the scientific method and harnessing inquisitiveness. Social science provides a coordinated, systematic study of disciplines such as sociology, anthropology, economics, geography, history, law, and political science as well as appropriate content from the humanities, mathematics, and natural sciences. The study of social science helps people develop the ability to make informed and reasoned decisions for the public good as citizens. The objectives of social science research are complex, multifaceted, and diverse.
The objectives of social research are as follows…….

- → Arranging systematic investigations into different social issues.
- → Finding new solutions to old problems.
- → Discover fresh information about relationships; to expand and make sure the knowledge
- → Research gathers new knowledge; discovers new principles.
- → Research boosts our power to comprehend, predict, and control outcomes.
- → The ultimate purpose of research is the formulation of theories.
- → It has both academic and non-academic purposes and importance.
- → Findings may be used for applied purposes for solving practical problems of daily life.

Kendall (1990) argues that there are five general objectives that research - in general, and more specifically about processes - may attempt to achieve:

- Description
- Explanation
- Forecasting
- Control
- Modeling

These objectives are not independent of each other, for the explanation of a phenomenon depends in part on its description; its prediction requires a detailed explanation, and so on. However, researchers may concentrate on one or the other aspect. Most significantly, the objective followed will affect the tools and

techniques employed for the analyses. Description and explanation are the two most frequent objectives. The description is most often an exploratory phase undertaken using graphical representations and statistical measures that are not inferential, while the explanation involves precise hypotheses to be confronted and employs inferential statistical tests. Identifying order in the complexity of social life is the most fundamental goal of social research. There are many other, more specific goals that contribute to this larger goal. These goals are quite diverse.

The goal of testing theories about social life contributes to the larger goal of identifying the order in complexity; so does the goal of collecting in-depth information on the diverse social groups that make up society. Another factor that contributes to the diversity of the goals of social research is a simple fact that social research reflects society, and society itself is diverse, multifaceted, and composed of many antagonistic groups. It follows that the goals of social research are multiple and sometimes contradictory. Today, no single goal dominates social research. However, with the pace of changing society, social research goals are also convinced to change. Ragin (1994) states that although there may be multiple objectives of social research, however, we can put forward seven major goals of social research which are as follows:

- Identifying general patterns and relationships.
- Testing and refining theories.
- Making predictions.
- Interpreting culturally or historically significant phenomena.
- Exploring diversity.
- Giving voice.
- Advancing new theories.

a. Identifying General Patterns and Relationships

Historic social marvels may be imperative since they are common; they influence numerous individuals, either straightforwardly or in a roundabout way.This quality of generality makes knowledge of such phenomena valuable. Hence, one of the major purposes of social research is to identify generalpatterns and relationships. In some corners, this is considered the primary goal because social research that is directed toward this end resembles research in the hard sciences. This resemblance gives social research more legitimacy, making it seem more like social physics and less like social philosophy or political ideology (Ragin, 1994).

Social research for most of its history has tried to follow the direction of the natural sciences in the development of its basic research strategies and practices.

This was most valuable especially when one was searching for general patterns. For example, if the general causes of ethnic antagonism (one general cause might be the concentration of members of an ethnic minority in lower social classes) are identified, government and people can work to remove these conditions from society or at least neutralize their impact and avoid serious ethnic rivalry and clash. As more and more is learned about general patterns, the general stock of social scientific knowledge increases, and it becomes probable for social scientists to systematize knowledge and make connections that might otherwise not be made.

Information about general patterns is often referred to as the knowledge of specific situations because every situation is unique in some way. Understanding a single situation thoroughly might be pointless if this understanding does not offer generalizable knowledge - if it doesn't lead to some insight related to other situations. From this viewpoint, knowing one situation thoroughly might even be considered counterproductive because we could be misled into thinking an unusual situation offers useful general knowledge when it does not, especially if we are ignorant of how this situation is atypical. Because of the general underdeveloped state of social scientific knowledge, we are not always sure which situations are typical and which are not. Moreover, because every situation is unique in some way, it also could be argued that every situation is different and therefore unreliable as a guide to general knowledge. When the goal is knowledge of general patterns, social researchers are inclined to mistrust what can be learned from one or a small number of cases. According to this reasoning, knowledge of general patterns is best achieved through the examination of many comparable situations or cases, the more the better. The examination of many cases provides a way to neutralize each case's uniqueness in an attempt to grasp as many cases as possible. If a broad pattern holds across many cases, then it may replicate the operation of an underlying cause which can be inferred from the broad pattern e.g.political viciousness happens in all nationsand both majority-rule and undemocratic nations.

b. Testing and Refining Theories

For the study of society, the most important aim of social research is to develop and expand the pool of ideas known as theories by testing their implications and refining their power to explain. Testing is carried out by deriving hypotheses from theories and the implications of these theories are then tested with data that bear directly on the hypotheses. Ideas and hypotheses that fail to receive support gradually lose their appeal, while those that are supported more consistently gain greater stature in the pool. Testing theories can also serve to refine them. By functioning through the inferences of a theory and then testing this refinement, it is feasible to increasingly improve and explain a set of ideas.

c. Making Predictions

Making predictions is enormouslyconclusive in research. While social researchers use theories to derive predictions about what they are supposed to find in a set of data, they also use collected social scientific data to make predictions. Prediction is often considered the highest goal of science. We accumulate knowledge so that we can anticipate things to come. No doubt in social research predictions is one of the most important goals; however, it's not always the case that prediction and understanding go hand in hand. Sometimes our predictions are quite accurate, but our understanding of the actual underlying processes that produce outcomes is incomplete or simply erroneous. Forecasting or the prediction rates is much easier than predicting specific events. The kinds of things many social scientists would like to be able to predict - namely the occurrence of specific events at specific points in time in the future - are simply beyond the scope of any science. For example, many social scientists reprimand themselves for being unable to predict the fall of communism in Eastern Europe in 1989. Their failure to predict these dramatic events made them feel incapable. However, no science, social or otherwise, could achieve this kind of prediction - the timing of specific future social events.

It is very difficult to predict specific future events. The same dilemma exists with the concrete science of meteorology (Ragin, 1994). At best, this science can predict the probability of rain over the next several days. However, what if we want to know when it will start when it will stop, and how much it will rain? It should be possible to predict these things. After all, no human intervention, interpretation, or subjectivity is involved, only measurable physical qualities like temperature, wind direction and velocity, moisture, and so on. However, the hard science of meteorology cannot offer this accuracy as it cannot predict merely specific events. Nor can meteorology anticipate which day, or indeed which year, violent wind tidal will once again hit Sri Lanka, and Maldives and storms will inflict overwhelming harm in Central America and other nations.

To conclude the discussions on the prediction capabilities of social science, it is vital to note that, despite the lacuna in knowledge and understanding, social science is not powerless, however, appears so because of the specificity of the predictions we desire. It would certainly be impressive to be able to predict the timing of events but it is outside the scope of any science to offer this degree of specificity. At best, social researchers can make broad projections of possibilities using their knowledge of general patterns.

d. Interpreting Culturally or Historically Significant Phenomena

Social science researchers pay incredible consideration to decipher culturally or historically noteworthy phenomena. In social sciences, knowledge of specific situations and events, even if they are uncharacteristic or atypical is also highly valued. The significance of most historical phenomena derives from their atypically, the fact that he is dramatically non-routine, and form their impact on who we are today. The evidence of past cultures and history hence becomes a vital source for analyzing the practical problems of the present day.

e. Exploring Diversity

As a pioneer to investigate new things, another major goal of social research is to investigate and comprehend the social differences that encompass us. While this goal may seem similar to the goal of identifying general patterns, and does complement it in some respects, it is quite different. Exploring diversity often means that the researchers ignore dominant patterns and focus on the variety of circumstances that exist. For illustration, how is living in a poor nation with a high level of education distinctive from living in other poor nations?

The study of diversity avoids an exclusive focus on what is most common or on dominant patterns. More generally, exploring diversity furthers an understanding and appreciation of socio-diversity, a concept that parallels the ecological notion of biodiversity. People are less concerned about socio-diversity than about biodiversity (protecting endangered species). Often, much diversity is simply unacknowledged or ignored.

f. Giving Voice

Giving voice is the equivalent word to supporting, equal to advocacy part. In social research nowadays the goal of exploring diversity is taken one step further, and the researcher studies a group not simply to learn more about it, but also to contribute to its having an expressed voice in society. It means the researchers help in highlighting the suppressed problems of the people and in bringing forward grievances in front of the public, government, and the world. In research of this type, the objective is not only to increase the stockpile of knowledge about different types, forms, and processes of social life but to tell the chronicle of the story of a specific group, usually in a way that enhances its visibility in society.

Subjugated backward minority groups, outside the social mainstream, are very often the groups studied in this way. The minor groups, outside the social majority, are the losers and are at risk of exploitation hence social research may

help these marginalized groups to expose their problems before all. This approach to social research asserts that every group in society has a story to tell. However, many researchers raise questions about the objectivity of this kind of research. Ragin (1994) says that some social researchers consider research that seeks to give voice advocacy research and therefore doubt its objectivity and impartiality. How can research that seeks to enhance the visibility of a marginal group is conducted neutrally? Isn't it inevitable that researchers will favor the positive aspects of the marginal groups? How such kind of research be neutral? One answer is that the researchers must be careful and watchful in their efforts to represent their groups appropriately. Another answer is that even the study of general social conditions that favor stable democracy across many countries enhances the importance and visibility of stable democracy as a desirable condition. The problem of maintaining neutrality and objectivity is not the problem of *giving a voice* approach only but is a general problem of the social sciences.

g. Advancing New Theories

Research is a multifaceted assignment. Advancing theories is also a common phenomenon in research. In the process of research, many diverse kinds of social research advance theory, even research that looks to interpret the historical or cultural significance. The testing of theories also advances theory in the restricted sense that these tests indicate which theoretical ideas have more support as explanations of social life. The goal of advancing theory involves more than assessing and refining existing ideas. When theory is advanced, ideas are elaborated in some new way. To advance theory it is not obligatory to come up with a complete model of society or even some part of it. The development of new ideas and new concepts is the most that researchers seeking to advance theory usually accomplish.

Significance and Utilities of Social Research

Social research is important for several reasons. It permits us to predict human behavior and encourages social control. It helps us increase the welfare of humankind and encourages the development of knowledge in social sciences and society. Social research is performed to identify routinely occurring social patterns in social life and a systematic understanding of social facts or phenomena. It is used to accumulate information on the social world, to come up with a course of action, or basically to develop new knowledge.

- Endlessly valuable to mankind for understanding and solving social issues and problems.
- Can help in social improvement, progress, and change.

- Diffuse social knowledge and establish theories.
- To keep up social unity and be helpful in social welfare.
- Social-cultural importance.
- Significant in social progress, and social control.
- Supportive in the removal of ignorance and superstition from society.
- Educational importance.
- Identification of applied plan.
- Administrative importance (Policy, plan, and program).
- Commercial importance.
- Academic utilities and Career (Profession) making.
- Intellectually delighting and mentally satisfying.
- Establish new styles and trends (literature, art, and architecture).
- Supportive in the development of policy implications and development of social science.

1.4Diverse Research Approaches in Social Sciences

Social science researches are diverse from natural science research. Natural sciences are more exact while social science is by no implies an exact science. Likewise, it is not always possible to conduct scientific investigations. There are complexities in applying scientific methods in social science. In natural sciences like chemistry, physics, biology, etc. we have the facility of a laboratory where experiments can be conducted under controlled conditions. However, in social sciences, there is no such condition. Researches in social science have to be undertaken in social settings where conditions remain uncontrollable. Scientific research is, therefore, not possible in every social science study where the laboratory is the wider society and it is extremely difficult to control all variables. Though management is a fairly recent social science, Pant (2009) claims that the purpose of conducting management research is to identify business problems or issues and to find out solutions to such problems or issues. Research is also undertaken for many other purposes like model building, strategy formulation, business process reengineering, and so on.

Social science researches are complex in that social science subjects are multifaceted and hence embedded with different disciplines. Social sciences are borrowing ideas from natural science disciplines. They (social and natural sciences) have adopted interdisciplinary approaches. Likewise, there has been a rise in interdisciplinary approaches in social science research. Interdisciplinary approaches in research seek to synthesize broad perspectives, knowledge, skills, interconnections, and epistemology in a research setting. It impliescrossing traditional boundaries between academic disciplines or schools of thought as new requirements and professions. Initially the term interdisciplinary is used to

illustrate studies that use methods and visions of several established disciplines or traditional fields of study. Interdisciplinary studies involve researchers to involve and integrating numerous academic schools of thought and approaches along with their specific perspectives -- in the search for a common task. Interdisciplinary may be functional where the subject is considered to have been neglected or even misrepresented in the conventional disciplinary structure of research.

Even though interdisciplinary is analyzed in twentieth-century terms, the notion has a history. The roots of the concepts lie in several ideas that vibrate through modern discourse—the thoughts of a combined science, general knowledge, synthesis, and the integration of knowledge. Interdisciplinary approaches occasionally arise from a shared belief that the traditional disciplines are unable or unwilling to address an important problem. For example, social science disciplines such as sociology and anthropology gave little attention to the social analysis of technology throughout most of the twentieth century. Consequently, many social scientists with curiosity in knowledge have joined science and technology studies programs, which are typically staffed by scholars drawn from numerous disciplines.

Interdisciplinary may itself become the focus of study in an evaluation of institutionalized disciplines' ways of creating knowledge. Perhaps the most widespread criticism regarding interdisciplinary approaches is the lack of synthesis—that is, with multiple disciplinary perspectives, there may not be effective guidance in resolving the conflicts and achieving a logical view of the subject. Critics of interdisciplinary approaches feel that the objective is simply idealistic but some supporters of interdisciplinary approaches admit the difficulty, however, they maintain that interdisciplinary approaches are indispensable in social science research.

Thomas Kuhn in his book called *The Copernican Revolution (1957)*, quoted the description given by Copernicus of the field of astronomy before his breakthrough. "It is as though an artist were to gather the hands, feet, head, and other members for his images from diverse models," he said, "each part excellently drawn, but not related to a single body, and since they in no way match each other the result would be more monster than man."

In the present, it is needed a sound *interdisciplinary*, integrated, and scientific social study---- founded on scientific research. Nevertheless, instead of the slow and difficult journey to that end, social science researchers preferred to take a shortcut. Kuhn's work on the philosophy of science -- when combined with knowledge of the history of ideas in the social sciences -- indicates that researchers could have proceeded very differently. Social science researchers

could have continued building on the empirical, evolutionarily rooted, interactionist, and systematic foundation spelled out by George Herbert Mead, John Dewey, Emile Durkheim, and others. It was a foundation that was *necessarily* interdisciplinary because it was grounded in shared organic roots, the social imperatives driving and limiting all humans and their cultural history. Karl Popper's(1980) and Thomas Kuhn's (1957) ideas combined reveal a great deal about what it means to be scientific. Above all, science would seem to be defined by an agreed-upon body of cumulative, reliable knowledge concerning factual, cause-and-effect relationships in that portion of nature on which the scholars concerned are focusing. A scientific body of knowledge has been built up over the centuries through a universally accepted research process. It is a process demanding both accurate observation and attempts at explanation that leads to fruitful theory. It requires the testing of hypotheses derived from such theories about how the relevant problem area is assumed to fit together and operate in the real world. Nevertheless, uncertainty lies ahead, if scholars especially sociologists/anthropologists do wish to move in the direction of interdisciplinary science, then, what is the role of theories and the hypotheses generated by them? And why is continuing research necessary? It is simply that, if scientific hypotheses fail to stand up to rigorous tests -- that is if they are consistently falsified -- then the theory which has generated them is called into question.

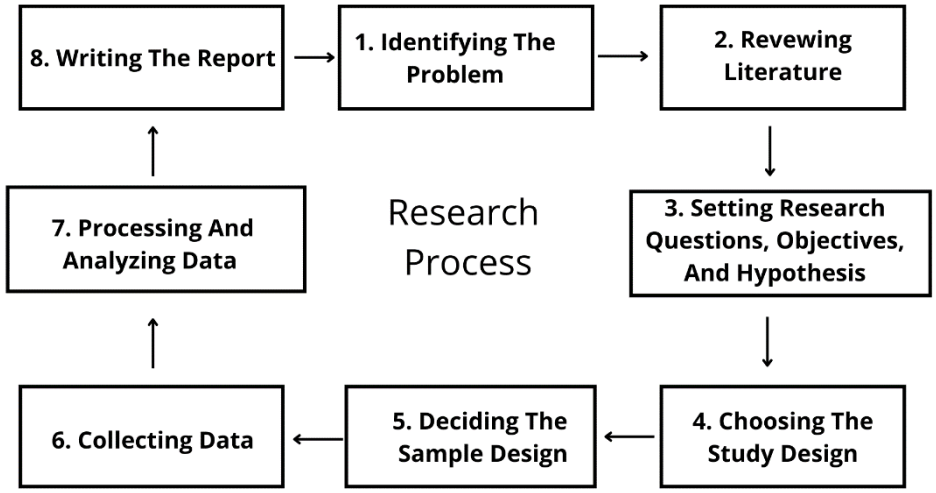
Notwithstanding all sorts of debates on interdisciplinary approaches in social science, unfortunately, different disciplines have not become integrated into an identifiable discipline concerned with clearly delineated problem areas -- capable of producing tested knowledge of crucial cause-and-effect relationships in human behavior. They have split in a subjective, random, and historically accidental way into *academic anarchism*-- overlapping and competing with one another as they approach the study of identical problems in their conflicting and mutually incommensurable ways. In the present, the most influential new faiths have emerged. For example, postmodernism insists that all knowledge claims are inevitably biased and subjective. Postmodernism is characterized by a world of culture in which consensus values, tradition, absolutist forms of knowledge, universal beliefs, standards, and normative control are challenged, undermined, and rejected for heterogeneity, differentiation, and difference. The very reality of the emergence of a post-modernist world has inevitably set up a new agenda for the social sciences since the existing one and its whole set of concepts, assumptions, aspirations, and methods are no longer relevant. Its foundations lie in the investigation of and programmatic attempts to control and direct the highly modern world. Postmodernism claims that it is incomprehensible for anybody to have objective and unbiased information about another culture. This view comes from the idea that we all translate the world around us in our way agreeing on our dialect, social foundation, and individual encounters. Hence,

given the modern interdisciplinary world of knowledge, social science research is also bound to adopt interdisciplinary approaches. The need is to develop a paradigm, such a paradigm and such a tradition that the social science researchers would be poised for take-off from proto-science to a precise interdisciplinary, unified science capable of producing reliable and cumulative knowledge about the human condition, human life, and society as a whole.

1.5Process of Social Research and Steps

Showing commonality to scientific research methods and processes, social science research is also based on certain common patterns characterized by a few key components and steps. Social science features a precise handle on research and it takes an assorted step of logical inquiry. There's a grouping of approaches to social research irrespective of whether it is basic research or applied. Each specific social research study will be special in many ways since of the specific time, setting, environment, and place in which it is being undertaken. The figure below clarifies the steps of social research embedded with the social research process:

Figure 1.3: **Process and Steps of Social Research**



All social research endeavors share a common goal of assisting our understanding of the problem and in this way all traverse through certain essential stages, shaping a process called the research process. An understanding of the research process is vital to viably carry out research and sequencethesteps/stages inherent within the process.

Step I: Identifying or Understanding Problem

The first step is observing the circumstance, sensingand identifying the issue/problem followed by understanding the problem. In a quick-changing world, modern problems keep on changing. Moreover, modern issues of different sorts rise. Researchers sense these developments happening within the environment. The analyst may not know precisely what is happening at first, but they unquestionably sense that things are not going on as easily as they ought to be.

Step II: Problem Identification

After the realization of the problem and the level of awareness of what is happening in the environment, it is vital to focus on the problem and the associated factors through a further search for information. In the process, it is necessary to clearly describe the problem to be researched. Preliminary analysis may be accomplished through a situation analysis and an informal investigation into the problem. In fact, in this step, I try to identify exactly what are the problems in the situation. Accurate problem identification is as essential as finding the correct solution. Researchers draw a significant issue, or a set of related issues, on which the researcher is qualified to conduct research and which is intellectually stimulating and challenging. The researcher has to explain the problem in detail and why he/she prefers that problem for research.

Step III: Theoretical Framework

Drawing the theoretical framework is a vital step of research. In this step of scientific research, we make an effort to integrate the information logically so that the reason for the problem can be conceptualized. The critical variables are examined and the association among them is identified. Putting all the variables and their association together, a theoretical framework is developed.

Step IV: Hypothesis Framework

The hypothesis for the study is drawn from the theoretical framework. Generally, a hypothesis is drawn to make predictions that can be tested by observing the outcome of an experiment. If the outcome is inconsistent with the hypothesis, then the hypothesis is rejected. A hypothesis represents a declarative statement of the relations between two or more variables.A hypothesis is a logically conjectured relationship between two or more variables expressed in the form of testable statements.

Step V: Research Design

The fifth stage the Research Design is a plan for the proposed research work. It is a planned sequence of the process involved in carrying out a research study. It represents a compromise dictated by mainly practical considerations providing guidelines to a researcher to get answers to the research questions and help to control experimental, extraneous, and error variances of a particular research problem. It describes the general framework for collecting, analyzing, and evaluating data after identifying: i) what the researcher wants to know, and ii) what has to be dealt with to obtain the required information.

Step VI: Data Collection

It is the sixth step of the research which is also called the fieldwork phase. Data collection instruments vary according to the nature, type of study, subject, and research design. The nature and sources of data need to be revealed whether the data collected for the study is qualitative or quantitative. It means it is necessary to mention sources of data… to be collected through primary or secondary sources. Generally, for the collection of primary data, the data collection instruments are Observation, interviews, questionnaire, case study, survey, RRA, PRA, FGD (Focus Group discussion) life history, social survey, genealogy, sociometry,etc. Questionnaires, observation, and FGD are more popular in Ethnographic Anthropological research. Secondary data are to be collected through the library and other non-direct sources.

Step VII: Data Analysis

It is the statistical analysis of data that has been edited, coded, and tabulated. The researcher emphasizes how and in what ways data are tabulated and analyzed. In data analysis, statistical procedures are employed with emphasis on the question of *what is the easiest way to collect code and analyze data. Use of SPSS? Why were these methods of analysis employed?* Data analysis is significant in cases where the researcher has collected large amounts of information from many respondents. It is with diverse statistical techniques that the hypotheses are tested.

Step VIII: Generalization

Generalization is the final step of the research process. It includeselucidation and generalization of the findings into the larger body of knowledge about the phenomenon. In the case of applied research, a specific implementation strategy is proposed to solve the problem identified by the study. It ought to be noted that by following the major steps outlined above, the researcher reduces the

possibility of making major errors and increases the possibility that meaningful research results will be obtained.

1.6Research Plan Preparation

Planning a research plan is a crucial task. The primary assignment for the research plan is to choose a topic or theme of interest. The researcher will find the expedition of research, grant writing, and publication much more satisfying when he has an indisputable interest in the topic. When the topic of research has importance, either from a basic or applied standpoint, it stands a greater chance of being accepted by the research communities, organizations, and academia and by the reader. The first and foremost task is to select a topic that has research potential. Afterward, other procedures of research are followed under a fixed research plan.

A research plan has its reason or purpose. The purpose of the research plan is to describe the *what*, *why*, and *how* of the research work. This is the core with different parts. For instance:

Part 1: Specific Aims; the *why*,
Part 2: Background and Significance; and the *how*,
Part 3: Preliminary Results contribute to both the *why* and *how*.
Part 4: Research Design and Methods.

The research plan shapes the premise of the research scheme and the ensuing work driving up to the preparation of the research report. Its development should be a major part of the early work of the researcher. A well-prepared research plan generally increases the likelihood of timely completion of the research work. The research process moves in a systematic and planned way, hence, the plan of the research needs to be organized scientifically. The full research plan is supposed to contain the following minimum components (but not solely limited to these):

- Working Topic
- Statement of Research
- Outline of Significance of Topic (e.g. its importance for advancing knowledge in the field/discipline or regions and/or implications for methodology or understanding)
- Literature Review
- Statement of the Research Questions or Hypotheses
- The Methodologies that will be used to investigate the questions or hypotheses
- Forms of Analysis of Data

- Report Outline
- Resource Requirements and Timing
- Timetable for the Project and Report writing

The research plan is supposed to answer the following questions:

- What do researchersintend to do?
- Why is this worth doing? How is it innovative (pioneering)?
- What has already been done in general, and what other researchers have done in this field?
- It is necessary to use appropriate references.
- What will this new work support in the knowledge field?
- What hasthe researcher done to establish the feasibility of what he is proposing to do?
- How will the research be accomplished? Who? What? When? Where? Why?

Proper consideration should be specified during the development of the plan, for implications for intellectual property and confidentiality matters and other ethical matters.

1.7Social Research Restraints

Social investigation includes the interaction between ideas and evidence. Ideas encourage social analysts to form a sense of proof, and analysts utilize realities to broaden, adjust and test ideas. Social research endeavors to create or validate theories through data collection and data analysis, and its objective is exploration, description, and explanation. But it should never lead to being mistaken with belief or philosophy. Nevertheless, social researches are comparatively flimsy and quite different from natural science research. Natural sciences are more specific though social science is not strictly exact science and there are numerous constraints of social research. As social research is conducted in society, it is difficult to generalize the findings owing to the differences in society. Likewise, there are no laws in social science equivalent to the laws in natural science. Law in social science is a universal generalization of a class of facts. In social research, it is not always possible to conduct scientific investigations. There are complications in applying scientific methods in social science. In natural sciences like physics, chemistry, zoology, botany, biology, etc. there is the facility of laboratory research where experiments are conducted under controlled conditions. Nevertheless, in social sciences, there is no such condition. Researches in social science have to be undertaken in social settings where conditions remain uncontrollable. For consolation, for social scientists, society is the laboratory, and people's issues and problems are the *chemicals* and

laboratory apparatuses. However, in natural science scientific research, no such condition prevails. Hence, scientific research is, therefore, not possible in every social science study where the laboratory is the wider society and it is extremely difficult to control all variables.

Regardless of the limitations and constraints of social research and even though there are no laws in social science that parallel laws in the natural sciences, there is agreement about fundamental rules or principles about how to do social research. At the time when social scientists converse about good research the center of attention is on how the research is done – whether the research is methodologically strong– rather than on whether the consequences of the research are consistent with individual partiality or presumption.

1.8Encapsulating Social Science Research

Have you ever speculated why individuals behave in certain ways? How about the way somebody thinks or approaches a new situation? Well, social science research works to reply to numerous of the questions we have about human behavior. Through scientific think about, social science investigation looks to get the how's (?) and whys (?) of human behavior.Social scientists follow the five steps of the scientific method to conduct research and to get the answers tothe hows and whys of human behavior.The scientific social method begins with a question or curiosity. An example of a research question might be the following: Does texting while driving increase the rate of car accidents? After a research question is determined, social science researchers must form a hypothesis. A hypothesis is an educated guess regarding what the researchers expect to find. Usually, social science researchers base their hypotheses on previous research in the field. In the case of our texting and driving example, researchers might hypothesize that texting while driving increases car accidents because previous research determined this. The third step that social science researchers take is to test the hypothesis through empirical research. Empirical research is the process of collecting and analyzing data. This can be done through descriptive research, experimental research, or correlational research. Descriptive research describes a behavior. Descriptive research might describe commonalities among those who are most likely to text and drive. Experimental research manipulates variables to measure changes in other variables. Precisely, social science researchers manipulate the independent variable to see how that manipulation changes the dependent variable. For example, experimental research might compare accident rates in those who text and drive versus those who do not text and drive.

Social research is based on logic and empirical observations. It involves the interface between ideas and evidence. Ideas help social researchers make sense

of evidence, and researchers use evidence to extend, revise and test ideas." Social research thus attempts to create or validate theories through data collection and data analysis, and its goal is exploration, description, explanation, and prediction. It should never be mistaken for philosophy or belief. Social research aims to find social patterns of regularity in social life and usually deals with social groups (aggregates of individuals), not individuals themselves (although the science of psychology is an exception here). Research can also be divided into pure research and applied research. Pure research has no application in real life, whereas applied research attempts to influence the real world. There are no laws in social science that parallel the laws in natural science. Law in social science is a universal generalization of a class of facts. A fact is an observed phenomenon, and observation means it has been seen, heard, or otherwise experienced by the researcher. A theory is a systematic explanation for the observations that relate to a particular aspect of social life and concepts are the basic building blocks of theory and are abstract elements representing classes of phenomena. Axioms or postulates are basic assertions assumed to be factual. Propositions are conclusions drawn about the relationships among concepts, based on an analysis of axioms. Hypotheses are specified expectations about empirical reality derived from propositions. Social research involves testing these hypotheses to see if they are true. When social scientists speak of "good research" the guidelines refer to how the science is mentioned and understood. It does not refer to how what the results are but how they are figured. Glenn Firebaughsummarizes the principles for good research in his book *Seven Rules for Social Research*(2008). The first rule is that "There should be the possibility of surprise in social research." As Firebaugh elaborates: "Rule 1 is intended to warn that you don't want to be blinded by preconceived ideas so that you fail to look for contrary evidence, or you fail to recognize contrary evidence when you do encounter it, or you recognize contrary evidence but suppress it and refuse to accept your findings for what they appear to say."

In addition, good research will "look for differences that make a difference" (Rule 2) and "build in reality checks" (Rule 3). Rule 4 advises researchers to replicate, that is, "to see if identical analyses yield similar results for different samples of people". The next two rules urge researchers to "compare like with like" (Rule 5) and to "study change" (Rule 6); these two rules are especially important when researchers want to estimate the effect of one variable on another (e.g. how much does college education matter for wages?). The final rule, "Let method be the servant, not the master," reminds researchers that methods are the means, not the end, of social research; it is critical from the outset to fit the research design to the research issue, rather than the other way around. Explanations in social theories can be idiographic or nomothetic. An idiographic approach to an explanation is one where the scientists seek to

exhaust the idiosyncratic causes of a particular condition or event, i.e. by trying to provide all possible explanations of a particular case.

Nomothetic clarifications tend to be more common with researchers attempting to recognize many causal variables that affect a wide lesson of conditions or occasions. For case, when managing the issue of how individuals select a work, idiographic clarification would be to list all conceivable reasons why a given individual (or a bunch) chooses a given work, whereas nomothetic clarification would attempt to discover components that decide why work candidates in common choose a given work. Research in science and social science may be a long, moderate, and troublesome preparation that in some cases produces wrong results since of methodological shortcomings and in uncommon cases duplicity. Hence, sole dependence on any one study is not recommended.

2

RESEARCH AND METATHEORY

No researcher is capable of offering sturdy pieces of evidence that counter the scant mirrored image on meta-theory - on the whole ontology and epistemology - underlying social technology research in general, and additionally, control problems e.g. business advertising and shopping studies in particular. Hence it's far important to have the necessary dialogue of meta-theoretical options in social science studies and, maximum importantly, the strengths and shortcomings thereof, and respective implications on studies questions, objectives, and findings.

Entrenched in the social phenomenon, social sciences are empirical studiesprimarily based on rigorous methodological evaluation of social activities. Durkheim and Simpson (1964) say that the concerns associated with empirical orientation for the understanding of social events draw our interest toward the methodological aspect of sociology. Scholars who have attempted to establish sociology as a scientific discipline has made us aware that social facts are things that can be treated like natural events. They can be observed in the field, and measured in quantities and the relationship among them can be established through experimental practices. By adopting appropriate methodological tools developed in natural sciences they can be elaborately described as discrete (separate) entities, their features can be summarized in groups, similarities and differences can be quantitatively identified in proportions, percentages, and averages, or the level of association and dissociation among them can be inferred by using several other statistical tools (Blalock, 1972).

For all purposes, scholars collect data from the field by consulting with a sample of social units if they are interested to derive some patterns of the features of a larger section of the population (Parel et al. 1973). Alternatively, they may concentrate to understand the features of a limited number of individual cases to describe thickly with specific details (Geertz, 1975) the contexts and conditions of their existence. The option to observe social events in the empirical field, measure them in quantitative terms, and identify their relationship through different types of experiments opens additional avenues to establish social science as a science. Observed, measured and experienced social truths allow scholars to translate them into language. This can be done by encapsulating them in concepts and their variables as well as by constructing statements about

relationships between facts represented by different types of conceptual tools (Schultz, 1954).

A concept is an abbreviated form of language that presents empirical facts about society. The options available to measure these data in quantitative units allow researchers to decompose these concepts into different types of variables that represent variable values of the experimental world encapsulated in these conceptual tools (Pandey, 2008). The observed facts of society are amenable too for a comparative study. A comparative study of multiple units of society permits scholars to group them into different types of categories according to the similarities and differences in features of those units. Sociological concepts are useful even to summarize the common reality represented by the groups of a specific category of social units. As descriptive tools, concepts describe the characteristics of a unit or a group of units in the social world. However, the opportunity provided to observe the relationships between different social units opens the possibility of establishing these relationships even conceptually. Articulating work between concepts representing different types of social units brings researchers closer to the theory-building process in social sciences such as sociology.

Social science theories are statements about the relationship between different realities of society. This kind of definition makes us realize that the theory-building process in social sciences must take into account two important questions. One of these questions is whether sociological theories should state the relationships between different elements of society. Since these elements are captured in the language by conceptual tools, the relational statements mentioned in the theory must be relational statements between the conceptual categories. Another issue of theoretical importance is that claims made in theory must be based on empirical data. This argument implies that theoretical statements in sociology should state the relationships between concepts that are formed based on proven facts of society. In addition, they must at least be able to be tested or verified as hypotheses against the realities of society to establish them as theories. These are the inductive and deductive paths of the reasoning process in sociology.

Social theories are fact-based statements about the connections between different sections of society. As statements based on verification with social facts, they allow researchers to predict the conditions for the occurrence of these relational events. Statements about the relationship between social factors can take a multitude of forms. They can mimic relationships between micro-units of society, or these relationships can also be validated within the context of larger social units. The potential for making theoretical claims in a wide variety of social-relational contexts suggests that the structure of sociological knowledge

extends beyond the task of discovering the nature of relationships between different elements of society. It even requires studying, analyzing, and classifying these sentences to form broader types of knowledge. The type of exercise that analyzes and classifies factual statements about the relationships between different types of social phenomena is called *meta-theorizing* practice in sociology. Therefore, sociological meta-theories are the theory of theories about the relationship between empirical realities. They make it possible to identify key cognitive paradigms; establish schools of thought among different types of theoretical claims; increase opportunities for knowledge communication between different types of disciplines; and motivate students to have a more macro-level broader view of social problems (Ritzer, 1987). They divide knowledge into broader categories and direct researchers to observe the empirical field from a different kind of perspective. In other words, they open up the plausibility of finding diverse sorts of meaning indeed within the connections between the same sorts of social units.

Turner (1987) affirms that there are four basic approaches in sociological theory for generating theoretical statements and formats:

- **Meta-theoretical schemes**
- **Analytical schemes**
- **Propositional schemes**
- **Modeling schemes**

He articulatesthat in sociological spheres, Metatheory is considered an essential prerequisite to adequate theory building, even though the dictionary definition of *Meta* emphasizes “occurring later” and “in succession” to previous activities. One of the most recent developments in sociological theory is the growth in interest in sociological meta-theorizing. While theorists take the social world as their subject matter, meta-theorists engage in the systematic study of the underlying structure of sociological theory (Ritzer, 1987). In the broader world, metatheory is a set of interconnecting rules, principles, or a story (narrative), that both describes and prescribes what is up to standard (acceptable) and unacceptable as theory - the means of conceptual exploration - in a scientific discipline. For instance, the prevailing meta-theory might recommend that change of form (transformational change) is, or is not, a reasonable way of understanding developmental change. If the prevailing metatheory accepted the legitimacy of transformational change, then theories of development would include some type of stage concept, because "stage" is the theoretical concept that is used to describe transformational change.

Meta-analysis is a common tendency among social researchers in numerous social fields. We can group the types of meta-analysis in sociology under the

heading “meta-sociology” (study of the nature and methodology of sociology), which we can define as the reflexive study of the underlying structure of sociology in general, as well as its various components—substantive areas, concepts, methods, data (Ritzer,1987). Hecontends that a metatheory is a broad perspective that overarches two or more, theories. There are many metatheories – *positivism, post-positivism, hermeneutics, and so on* – of importance in sociology and other social sciences. Two of the best-known and most important are methodological holism and methodological individualism.

German mathematician, David Hilbert, provided the most outstanding example of a metatheory. He constructed an elementary proof of the consistency of mathematics in 1905.For this purpose, he needed a theory that studies mathematics and has mathematical proofs as the objects to be investigated. Although theorems proved in 1931 by Kurt Gödel, a Moravian–U.S. mathematical logician, made it unlikely that Hilbert’s program could succeed, his meta-mathematics became the forerunner of much fruitful research. From the late 1920s Rudolf Carnap, a leading philosopher of science and language, extended this inquiry, under the headings meta-logic and logical syntax, to the study of formalized languages. Practical or methodological holism takes as its indispensable unit of analysis and centers most of its attention on, *social wholes* such as social structures, social institutions, imperatively coordinated associations, and capitalism. It overarches such large-scale, macro-level theories as structural functionalism, conflict theory, and some varieties of neo-Marxian theory. Methodological individualism takes as its unit of analysis and focal concern individual-level phenomena such as the mind, self, action, accounts, behavior, rational action, and so on. It overarches a series of micro-level theories such as symbolic interactionism, ethnomethodology, exchange theory, and rational choice theory. There is a third, methodological relationism that concerns itself with the relationship between social wholes and social individuals and overarches a series of theories that arose mainly in the 1980s to compensate for the micro and macro-extremism of the two extant meta-theories.

Social science methodology is a set of interlocking rules, principles, or a story, that describes and prescribes the nature of acceptable methods -- the means of observational exploration - in a scientific discipline. For example, the prevailing methodology might set down that the assessment of sequences is, or is not, critical to understanding developmental change. If deemed critical to methodology, sequential assessment methods would assume a central place as a tool of empirical inquiry. It is illustrious that metatheory and methodology are closely interrelated and intertwined. Metatheory presents a vision of the nature of the world and the objects of that world (e.g., do you accept a picture of persons as "active agents" "constructing" their known world, or as "recoding devices" that "process" information). The methodology presents a vision of the

tools we can use to explore that world, a theory the subject matter of which is another theory. A finding proved in the former that deals with the latter are known as a meta-theorem.

George Herbert Mead is identified as a perfect practice-minded scholar. Mead's work stimulated practitioners to interpret and advocate for the poor and oppressed. Mead pioneered an approach to cross-cultural boundary work that was used to help clients interpret their experiences, intervene between clients and social institutions, and represent clients' needs to a non-sympathetic middle class. Mead's notions of "universe of discourse," "international mindedness," and "the democratic assumption" are linked to those of meta-theorists and developed as a "metatheory for use." Four meta-theoretical tools—*translation by membership focus, by metaphor, by map, and by model*—are recommended to sociologists committed to interdisciplinary, multi-theory service. In the course of analysis, a wide-ranging strategy for using metatheory to produce theory is proposed, and portions of this strategy are illustrated with a preliminary analysis of several proposed, and portions of this strategy are illustrated with a preliminary analysis of several theories- a theory the subject matter of which is another theory.

2.1Metatheory and Research Agenda

There's a distinction between theory and metatheory. A theory is a set of concepts and relationship statements that offer assistance to describe, explain, clarify, assess, predict, and control communication events, while metatheory provides the foundation required to classify, compare, and evaluate communication theories. A metatheory or meta-theory is a *theory* whose subject matter is itself a theory. A metatheory is not applied directly to practice but may have applications to the practice of the field it studies. In sociology, metatheory is a comparatively new-fangled domain that aims to designate and describe prevailing sociological theory methodically and systematically, and also, to some degree, to suggest what future sociological theories ought to be like. In mathematics and mathematical logic, a metatheory is a mathematical theory about another mathematical theory. Meta-theoretical studies and investigations are part of the philosophy of science.

The emerging field of metascience looks to use scientific knowledge to improve the practice of science itself. Metatheory can be seen as the philosophy behind the theory, the elemental set of ideas about how phenomena of interest in a specific field ought to be considered and researched. It is a theory concerned with the investigation, analysis, description investigation, or depiction of the theory itself. A metatheory puts specific research questions within a comprehensive framework and persuades the integration of theorizing for a

range of potentially dissimilar phenomena. It sets parameters for predictions by specific theories and contexts. Resistance to ideas and disputes among theorists often reflect differences in metatheories. Nevertheless, openness to debate and integration of concepts can turn these into advantages by raising new research questions. These issues converseabout diverse perspectives on groups; theorizing about intergroup behavior, motivation, and self-categorization; the connection between laboratory and real-world phenomena; and the linkage of intergroup and intergroup behavior. Hass and Mattson (2015) claim that metatheory is a theory related to the investigation, analysis, or description of the theory itself. It means, it is a theory. In social sciences, a metatheory is a social science theory related to any other social science subject. Meta-theoretical investigations are a fragment of the philosophy of science. A metatheory is not logical directly to practice but may have been usedin the practice of the field it explores. The developing field of metascience denotes the use of scientific methodology to study science itself to increase the quality of scientific research. Metatheory is research on research and the science of science because it uses research methods to study how research is done and where enhancements can be made i.e. *eagle's eye view of science*. However, the interrelationship between metatheory and research agenda is crucial. The *theory* is the mid (center) concept between research agenda and metatheory. Meta-theoretical schemes are deeply entrenchedin research activities that are organized in a fixed format in the absence of which it will be difficult to proceed ahead,due to which a researcher may be stuck in a difficult situation. The general format is as follows:

- Definition
- Statements (of Problem)
- Concepts
- Formats
- Meta-theoretical Scheme
- Analytical Scheme
- Propositional Scheme
- Modeling Scheme

The relationship between research and theory, first of all, can be discussed followed by metatheory and corresponding research activities/agenda:

a. The suggestion of Problems and Hypothesis

Social theories help in making predictions on social problems, events,etc., and their probable causes. The predictions and the truth of the hypothesis are judged based on research.

b. Guidance and Facilitation

Social theories provide guidance and facilitation by pointing out the social problems, facts, and issues, and also by determining and fixing the study area.

c. Validation and Repudiation of Theory

Social theories are dynamic and ever-changing owing to the ever-changing nature of the social system. For that reason, social theories are always open for revision. Social research is the only medium to validate or repudiate the theory.

d. Helpful in Theory building

Social researches are enormously helpful in diverse fields. For example, social researches are helpful not only in verifying old theories but also in building new theories. Hence social researches are the only medium for verifying old theories, building new theories, and widening the scope of social theories.

e. Development and Refinement of Sociological Concepts

Sociological theories are made from the united unification of concepts. Hence, concepts are the fundamental units of sociological theories. It is social researchthat not only prepares the ground for the development of social concepts but also helps in the refinement, modification, and purification of concepts.

f. Effective Summation of Empirical Findings

Social theories help in the effective blending of facts and concepts to integrate the concepts to build a balanced theory. The effective summation or summing up of empirical findings is only possible through social theories.

g. Striking and Balance between Quality and Quantity of Facts

The qualitative aspect of fact is related to the interpretive aspects, and the quantitative facet is correlated to the measurable aspects. For validating the theory, both qualitative and quantitative aspects of *facts* are fundamental and imperative. In the lack of one aspect, another will be isolated and incomplete. Hence, perfect striking (outstanding) and a balance between quality and quantity of facts are a must.

h. Enhancement of power of Prediction, Precision, Validity, and Verifiability of Sociological Theories

The *new* most recent or the newer social research help in bringing forward new facts which in turn helps in the validation, the enhancement of the power of prediction, precision, and verifiability of sociological theories. Broadly, it can be said that theory is builtbased on research, and the description and analysis of theory are done by *metatheory*. There prevails a deep, interactive, and interdependent interrelationship between social research and metatheory. Researchis piloted on the foundation of theoretical assumptions and the

description and analysis of theory arecompleted by *metatheory*. The task of analyzing and description of theories build in different time phases is possible through metatheory. Hence, metatheory prepares the ground for new research and new theory building.

2.2 Metatheory and Corresponding Research Agenda

A few approaches of metatheory are criticized for their inclination to avoid logical/scientific sociology's central assignment particularly to clarify how the social universe works. Indeed, even thoughmuch metatheory is scholastically stimulating, it can be annoying or debilitating (debilitating) in that it pulls social hypotheses into surveys of the history of ideas, ideological critique, textual debate, philosophical talk, and other unresolvable intellectual issues. In doing so, metatheory directs attention away from the analysis of the operative dynamics of the social world. Such may not be the case, nevertheless, metatheory can be used to produce better theories in operational relationships with the research agenda. It means the metatheory and corresponding research activities/agenda associations are imperative.Metatheory and the interrelated research activities/agenda are imperative to be discussed under three headings. These are the *models* for explaining the metatheory:

a. Basic assumptions about social reality: How do social phenomena operate?
b. Methodological rules for studying social reality: How social phenomena should be studied?
c. Research Activities or Proposal or Agenda with the following tenants:
    - *The focus of the study or problem of the study*
    - *Types of data*
    - *Techniques of data collection*
    - *Modes of data analysis.*

2.3Induction, Deduction, and Generalization

a. Inductive Method, Meaning, and Definition

It is a method of reasoning in which a body of observations is synthesized to come up with a general principle and hence, is the vigilant conscious mental procedure by which we pass from the perception of particular phenomena (things and events) to the knowledge of general truths. The induction method is the fundamental method for concluding from *particular to the general*. Inductive reasoning aims at developing a theory. Take an example, suppose, when a sociologist describes the characteristics of a society, he is not primarily

interested in the characteristics of the society under observation, but in those characteristics, he believes are shared by all other societies of human beings. The Inductive methodcreates laws based on the observation of the facts, by generalizing the observed behavior; actually, what achieves is a type of generalization without obtaining a demonstration of the laws or set of conclusions through logic.

Definition

Induction is the production of facts to prove a general statement, informing of a general law from particular instances. According to Kerlinger (1986) inductive approach is concerned with the generation of new theories emerging from the data. This is the process of drawing inferences about a whole class from observations of a few of its members. Young (1982)defines induction as the process of reasoning from particular cases to a whole group of cases from concrete facts to generalizations from individual instances to universal ones.Bhandarkar et al. (2010) assert that induction moves from particulars to arriving at general propositions. It is a leap of faith.Scott and Marshall's(2014) Oxford Dictionary of Sociology defines induction as the logical process in which generalizationsare inferred from specific facts. Essentially, induction is the process of reasoning from individual instances to general principles. The experimental method is inductive, in that general conclusions are derived (made from) individual observations.It is quite easy to conclude by starting a movement from particular to general as in the inductive method. For illustration:

- → My friend borrowed 10,000 rupees last May but he did not pay it back until August as he had promised (PREMISE).
- → Then he assured me that he will pay back until October but he didn't (PREMISE).
- → He also failed in to keep his promise to pay back in February (PREMISE).
- → I reckon I have to face the facts.
- → **My friend is never going to pay me back** (CONCLUSION).

The aforementioned example confirms that it is quite easy to conclude by starting an effort from a particular to ageneral. Let's take one more example:

→ *From a political point of view, Britain is a democratic country*
→ *John is democratic*
→ *Being British, I am democratic*
→ *British people are democratic*
→ ***All are British***

This example clarifies that from a political point of view Britain is a democratic country. Based on diverse pieces of evidence,an attempt has been made to generalize that Britain is a politically democratic country. The method adopted is from particular to general. In actuality, Induction is, in reality, a logical method concerning many stages and processes besides the central step of generalization itself; and it is opposed to deduction only in the sense that it approaches reality from the side of the concrete and individual, while deduction does so from that of the abstract and universal. The first of these steps is the observation of some fact or facts of sense-experience, usually a repeated coexistence in space or sequence in time of certain things or events. This naturally prompts us to seek its explanation, i.e. its causes, the total combination of proximate agencies to which it is due, and the law according to which these causes secure its regular recurrence, on the assumption that the causes operative in the physical universe is such that acting in similar circumstances they will always produce similar results. Next is the stage at which the tentative, empirical generalization is made; the suggestion occurs that the observed connections may be universal in space and time, maybe a natural causal connection the ground of which lies in a suspected agency or group of agencies operative in the total sense-experience that gives us the elements under investigation. This is the formation of a scientific hypothesis. All discoveries of laws of physical nature are by way of hypotheses, and discovery precedes proof; we must suspect and guess the causal law that explains the phenomenon before we can verify or establish the law. A hypothesis is visualized as an abstract judgment, a provisional supposition as to the cause of a phenomenon, made with the object of determining the real cause of the latter.

Demerits of the Inductive method

The inductive method of reasoning has been utilized for a long time, but it isn't fully dependable. We must be mindful that the human intellect is exceptionally imaginative, and may build up generalizations, a few of which gotten to be broadly acknowledged, that cannot be substantiated.For illustration, within the worldwide setting, endless generations of joint pain (arthritis) sufferers have accepted that the seriousness of their torment was influenced by the climate. But a study reported in 1996 showed that there's no relationship between the two. The study concluded, “We hypothesize that this belief results, in part at least, from people’s propensity to perceive patterns where none exist”.

In a wide framework there are various demerits of the inductive method which are as follows:

- To explore the sequence of events/phenomena scientifically trained manpower is necessary, however, there may be difficulties in getting trained manpower.

- There may be problems with getting a concrete reality owing to limited statistics.
- Likelihoods of prejudice.
- Complex and intricate with diverse problems.
- There are several drawbacks to the method of inductive reasoning that must be avoided. Because it is *not practical* to examine every member of a class, induction is *based on the study of a part*, or a sample, of the class.
- Significantly,bias should not be introduced into the sample, and the best way to avoid sampling errors is to use a random method of sampling that permits confidence limits to be placed on the statement and establishes the probability of it being correct.

Merits of the Inductive Method

There are general rules about the validity of inductive statements. The first is that the more precisely a class (group or set) can be specified; the more likely it is that the properties of individual members will be shared by the whole class (group or set). The second is that the more varied the conditions under which the property is observed, the stronger the evidence for the generalizations. Thirdly, if the observations are under a theory, the generalization is strengthened. However, purely empirical generalizations are not highly regarded until an explanation or theory exists. Some of the merits of the inductive method are as follows:

- The conclusion may be realistic owing to authentic events.
- Possibilities of the rechecking of the authenticity of the findings.
- Dynamic conclusions.
- The inductive method can be complementary tothe deductive method.

b. Concept of Deduction

Deductive reasoning aims at testing an existing theory. It is the fundamental method of concluding from *general to particular*. Although deductive reasoningis more appropriate for the formal sciences and the inductive reasoning of the empirical sciences, nothing prevents the indiscriminate application of a scientific method, or any other method, to a particular theory.The deduction is the logical reasoning that something must be true because it is a particular case of a general statement that is known to be true. This technique also provides a method for the testing of hypotheses. Although it may be difficult to test a hypothesis directly, we may deduce that, for the hypothesis to be true, several consequences can be tested directly. If the consequences are proven true, this adds credence to the hypothesis.

Deductive reasoning time starts from at least one universal premise, bringing under the principle embodied therein; hence it is called *synthetic reasoning*. However, of greater importance than this is the process by which, starting as we do from the individual, disconnected data of sense-experience, we attain certain knowledge of judgments that are unavoidably true and therefore universally valid about those data.

Definition

The process of logic in the deductive strategy is from general to particular.Young (1982) argues:

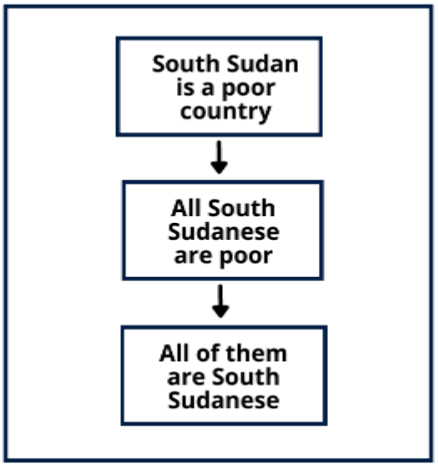
The deduction isthe process of reasoning from general principles to particular instances. A deduction is used in scientific methods when a specific hypothesis or particular predictions are derived from broader theoretical principles.

Scott and Marshall(2014) have presented the definition of the deductive method as:

The process of reasoning from general principles to particular instances. The deduction is used in the scientific method when a specific hypothesis or particular predictions are derived from broader theoretical principles.

The principles of deductive logic can be expressed mathematically by employing a symbolic notation, hence the name symbolic logic. Mathematics makes possible much more complex and far-reaching deductions than would be possible if argued in ordinary language. Take an example:

Figure 2.1: **Process of Deductive Logic**



Demerits of the Deductive Method

There are diverse issues with the deductive logical method. The inconceivability of disproving a scientific theory isn't a virtue but a defect. Deductive reasoning, inductive reasoning, and hypothetic-deductive or hypothesis testing are the three scientific methods, which are referred to by the generic name of the scientific method. The first thing is the fact that the first two *scientific methods* have a problem as the name is difficult to distinguish, given that in a language context they can represent just one concept with two statements: *reasoning* in one direction or the other, from general to specific, or vice versa. The demerits of the deductive method are as follows:

- Unable to give the true picture of the phenomenon.
- Social laws cannot be sovereign because social systems differ according to society and social structures are also dynamic.
- The deductive method does not help build new theories.

Merits of Deductive Method

- Easiness in data collection and analysis because conclusions are derived from simple and empirical data.
- Sovereigntyis a feature of the deductive method because it is based on simple law.
- Lucidity in conclusion because the conclusions derived from deductive methods are clear and fixed and errors can be corrected.
- Neutral.....since the basic strategy for concluding is from general to particular thus there are no chances for the researchers' predisposition and stereoscopic views and behavior.
- The micro-study is not necessary for the deductive method consequently, this method is very useful in the field of social science subjects such as sociology and anthropology.

In the development of trying to ponder on the topic of deduction and induction methods, the fundamental difference between the *deductive method and the inductive method* is that the first aims to indicate, through pure logic, the conclusion in its entirety based on a few premises. But both deductive reasoning and inductive reasoning can go from general to specific and vice versa, in one direction or the other. Both use logic and conclude. As a last option, they always have philosophic substratum elements. Both tend to be at risk or susceptible to empirical testing.

c. Generalization

The term *generalization* signifies the process of building simple laws based on facts. Generalization may be sovereign and maybe simple. In simple terms, generalization denotes that what is true for a simple is also true for the whole population and other areas too. Generalization is the generality or simplification or sweeping statement related to the formation of a broad-spectrum statement on the groundwork of numerous accurate (precise) observations. Generalization is a fundamental progression in induction.

Definitions

There are different definitions of *generalizations*. In common understanding, generalization means that what is true for a simple is also true for the whole population.Scott andMarshall (2014) define generalization as*the formulation of a general statement based onseveral specific observations.* For example, 'all ravens (birds of the crow family) are black'. Generalization is a basic process in induction.Bhandarkar et al. (1992) characterized generalization in the following words:
The conclusion of any import in science is generalizations, i.e. statements of general applicability. Typically, a series of observations of some of the objects, say X, is made by the scientists to determine whether or not the members' items of this class have some property, say Y.

Sciences differ in respect of the levels of generalization attained. More mature the science, the greater its generalizing potential. This has been conveyed with amazing felicity. The factual burden of science varies inversely with its degree of maturity. As science advances particular facts are comprehended within, therefore in sense are annihilated (destroyed) by general statements of steadily increasing explanatory powers and compass. In all sciences we are powerfully relieved of the burden of singular instances of the oppression of the specific, we are required not to record the drop of each apple as in the case of Isaac Newton whose recognition caused him to consider why apples persistently drop straight to the ground rather than upward and propelled him to demonstrate that the drive that creates the apple drop which holds us on the ground is the same as the drive that keeps the moon and planets in their orbit.

Generalization as a course of simplification is a fundamental process in induction. The inductive method makes laws based on the perception of the truths, by generalizing the observed behavior; really, what is achieved could be a sort of generalization without obtaining a demonstration of laws or a set of conclusions through logic. This process may be called induction in a wide and

improper sense of the word. No *generalization* is ever wholly true, and few generalizations based on many data are completely false. No matter how carefully and completely a class is defined, an individual member eventually turns up which contradicts the generalization. This does not usually lead to outright rejection of the generalization, but a more precise definition of the class and new limitations on the generalization. Even though induction is consistently correct and appropriate in all departments of generalization from experience, in the historical and anthropological no less than in the physical sciences, still it is in its application to the discovery of the causes and laws of physical phenomena, living and non-living, that it let somebody use itself most readily to logical analysis. Besides the central step of generalization itself within the induction method, induction may be a consistent strategy including many stages and processes; and it is opposed to deduction only in the sense that it approaches reality from the side of the concrete and individual.

3

DESIGNS OF RESEARCH

Research design is a comprehensive format of research work that incorporates sampling methods, choosing a research design, and deciding on research questions that advise public conclusions and coordinate future studies. It is comparable to a road map that clears the way for the research and a plan for the proposed research work.As an arranged grouping of the process included in carrying out a research study, a research model or design represents a compromise directed by mainly practical considerations. It may be a research strategy giving guidelines to the researcher to induce answers to the research questions and offer assistance to control experimental, extraneous, and error variances of a particular research problem. The research includes covering the known knowledge wilderness within the researcher's research problem, designing experiments/surveys, collecting and processing data, analyzing it, and arriving at valuable conclusions which validate a proposed theory, disapprove of a known theory, or create a new theoretical framework.

Perhaps it may be a research venture in any field or any sort of undertaking or wander, one of the foremost critical steps sometime recently starting research is choosing on research design. It is how a researcher plans to approach the research subject, collect data, analyze it and consider the research problem. In verity, research design gives the cement or the adhesive that holds the research block or the project organized and intact. A design is utilized to structure the research and to show how all of the major parts of the research project -- the samples or groups, measures, treatments or programs, and methods of the task -- work together to address the central research questions. Research design isn't a highly precise plan to be followed without deviations but rather an arrangement of guide-post to keep one headed within the right course.

There are numerous definitions of research design provided by theauthors. Saltz et al. (1964) define research design as the arrangements of conditions for the collection and analysis of data in a manner that aims to combine relevance to the purpose with economy in procedure.Kerlinger (1986) defines research design as the plan, structure, and strategy of investigation conceived to obtain answers to reach questions and control variance. In common it can be said that research design investigates the process of designing in research. A primary interpretation of research design is that it is related to undertaking research into the design process. The overall intention is to better understand and improve the design process of research.

Designing is a preliminary step in every research activity because it is at the designing stage that the purpose for which the design is being prepared is to be decided. The purpose for which research is to be used will also have to be decided at the designing stage. Designing thus provides a picture of the whole research project before starting the work. The issue of how various phases of research can be brought under is very crucial. The problem of control can be handled by designing the research and by understanding what is involved in designing. To design is to plan, that is designing is the process of making decisions before the situation arises in which the decision has been carried out. The research design results, from certain decisions taken and ordered in a certain sequence by the scientists. The major design decisions are about the following aspects (Young, 1982; Bhandarkar et al. 2010):

- What the study is about and what are the types of data needed?
- Why the study has been made?
- Where the data needed, can be found?
- Where or in what area the study will be carried out?
- What periods the study will include?
- How much material and how many cases will be needed?
- What bases will be used for the selection of cases?
- What techniques of gathering data will be adopted?
- How will the data be analyzed?
- How best can these above questions be decided upon and decisions articulated in a manner that the research purpose will be achieved with minimum expenditure of money, time, and energy?

Young (1982) clarifies the above-mentioned questions and answers as follows:

- Sources of information.
- Nature of study.
- Objectives of the study
- The social and cultural background of the study.
- Geographical area of the study.
- Time phase/Timing of the study.
- Size/Sample of the study.
- Basis of material selection.
- Instruments of data collection.

3.1Research Design and Features

Research design is the layout for the research proposal and as such, it ought to be clear in the design of the scope of the research, why it'll be done and where

it'll be done. It must also indicate the sort of data required, where it'll be accessible, and what the coverage and duration of the study will be. Raj (2002) argues that not only that, but study design must dictate its data collection and analysis techniques. A good study design should provide a clear idea of the sample design as well as the report writing style. Sampling plans must specify methods for selecting items to be followed for the study, while observation plans must specify the conditions under which observations should be made. The main concerns for statistical design should be addressed, how data should be collected and analyzed, how observations should be made and what should be discarded. To a large extent, the research design should specify the source and type of information needed for the research problem and the strategy used to collect and analyze the data. A research design provides ideas for money, time, and a clear statement and framework of the research problem.

3.2 Rationale and Nature of Research Design

Research design is fundamental for the entire study and helps in findings from faltering in anticipation of the beginning of the work. There are two basic purposes of a research design namely (Raj, 2002):

- *To provide answers to research questions; and*
- *To control variance.*

Kerlinger (1986) held that design helps the investigator obtain answers to the questions of research and also helps him to control the experimental, extraneous, and error variance of the particular research problem under study. Since every research problem is prepared with a view to solving some problems therefore the purpose of research design is to control variance. Another purpose of research design is that the researcher should find answers to research questions validly, objectively, accurately as well as economically. Raj (2002) argues that a carefully finalized research design is sure to yield dependable and valid answers to the research questions epitomized by the hypothesis.

Compactly it can be said that research design let know us what surveillance to make, how to make it, and how to analyze the quantitative representation of the research study. It recommends the direction of observation. A research design let us know almost the strategy that we select to integrate the diverse components of the study coherently and consistently, in this manner, guaranteeing we are going to successfully address the research problem. It constitutes the outline or the blueprint for the collection, measurement, and investigation of data.It too prescribes the number of observations to be made, the operational variables, and the sort of statistical tools to be utilized.A well-balanced quality design will also help researchers draw viable conclusions from

statistical analysis. It is not possible to have an individual study estimate because each researcher would have to prepare a study estimate of his or her choosing, taking into account his or her personal, theoretical, and methodological orientations. Different designs will help test different hypotheses. But each model is constrained by limitations of time, money, personnel, data availability, and the nature of respondents.

3.3Stages of Research Design

Any research venture or project takes on an arrangement of clear stages, all of which ought to be carefully considered in advance. But, choosing what to research isn't in itself a value-free workout. What is examined and the way it is examined may make a statement about the values of the researcher, or the research project. Barnard and Kirby (2004) believe that having decided on an area of a research subject, a typical project would need to:

- Decide on research strategy
- Formulate research problems and hypotheses
- Decide on how and whether to use sampling techniques and pilot studies
- Conduct the research
- Interpret the results
- Report the findings

Be it research of any frame and in any field, each one of the research design sorts has a few things similar. One is the literature review of the subject matter which covers the known wilderness of information in this field and includes the review of published literature related to the research problem at hand. Next is the development of a causal line of thinking that proves the research objective and a program of gathering evidence to back it up. Drawing conclusions from researched data is the last part of the course.

3.4Research Design Types

There are different research issues or problems. Thus, there are as various research design types as there are research problems. Types of investigation plans depend on numerous varied features comprising the nature of the research problem, field of research, profundity or the depth of required detail, and its objective. This book presents a common view of how to choose research design types irrespective of the field of research. To make the best choice out of various research design types, the researcher needs to state his research objective clearly. The research objective will decide what information he needs to proceed with and how he is going to go about collecting and analyzing it. If it is a

scientific research project, then the researcher needs to think about designing experiments to prove his point. If it is a research project in social sciences, a major part of the research design is creating a survey questionnaire and exploring channels of information related to the topic. Sociological and anthropologicalresearch methods fall into this category. Regarding research designs adopted in a different field, it is to be noted that marketing research design is aimed at the singular objective of increasing sales of a product through marketing research. Here are the two main types of research design types in the marketing field.

- *Qualitative Research Design Types*: The information gathered is qualitative and the focus is on gathering data from specific focus groups and in-depth interviews.
- *Quantitative Research Design Types*: Uses polls, surveys, and mass media for the gathering of consumer-related data. Quantitative details are more focused upon and statistical techniques are used for analysis.

Likewise, research in scientific fields like chemistry, physics, biology, or medicine follows two research design types, which are the following:

- *Analytical Research Design Types*: This type of research design focuses on theoretical lines, to solve the problem.
- *Experimental Research Design Types*: This approach focuses on designing experiments to verify theoretical models.

In medical research, the clinical study design is the formulation of trials, tests, and experiments in therapeutic (medical) and epidemiological research, now and then known as clinical trials. Numerous considerations in medical research are shared beneath the more general topic of the design of experiments however there can be others, in specific related to patient privacy and morals (ethics). However, in social sciences, the types of research design usually accepted are as follows:

a. Exploratory or Formulative Research Design

The first purpose of an exploratory or formulative study is to formulate a problem for a more correct examination or study for creating a hypothesis. The objective of exploratory research is to assemble preliminary or preparatory information that will help define problems and prescribe hypotheses. Such sort of study can have other functions as well; to be a specific, more organized investigation, of phenomena that an analyst wishes to study in the subsequent. A research design as such makes a difference in clarifying concepts and establishing priorities for further research. Exploratory research design studies

represent the earlier stage of any study. It is from the findings of the studies that a new research problem may be defined, formulated or a new hypothesis developed, or an existing one more scientifically tested (Raj, 2002). It is the introductory or the early step of problem finding and hence, much of social research is of exploratory nature. As most of the research in social sciences is either too general or too specific, in this manner, they don't give reasonable direction and guidance to empirical research. Given the circumstance, exploratory research is thus fundamental for gaining experience in the formulation of hypotheses for any definite investigation. This type of study is additionally fundamental for the areas where not much is known. An exploratory sort of research design begins with no clear objective but analyzes known results for possible research clues which eventually leads to causative reasoning and thinking.

Exploratory or Formulative research design stretches knowledge into and comprehension of an issue or circumstance. It should draw ultimate or definitive conclusions only with great caution. Exploratory research may be a type of research performed since a problem has not been clearly defined. Exploratory inquiry helps to decide the most excellent research design, data collection method, and determination of subjects. Because of its fundamental nature, exploratory research often concludes that a perceived problem does not exist. Exploratory research often relies on secondary research such as reviewing available literature and/or data, or qualitative approaches such as informal discussions with consumers, employees, management, or competitors, and more formal approaches through in-depth interviews, focus groups, and projective methods, case studies, or pilot studies.

In general cases, the outcomes of exploratory research are not usually useful for decision-making by themselves, but they can provide significant insight into a given situation. Although the results of qualitative research can give some indication as to the why, how, and when something occurs, it cannot tell us how often or how many. But is to be kept in head that applied research in administration is often exploratory because there is a need for flexibility in approaching the problem. In addition, there are often data limitations and a need to decide within a short period. Qualitative research methods such as case studies or field research are often used in exploratory research.

Exploratory research is not typically generalizable to the population at large. In many social science spheres, exploratory research looks to find out how people get along in the setting under question, what meanings they give to their actions, and what issues concern them. The goal is to learn what is going on here. and to investigate social phenomena without clear expectations. Schutt (2009) has claimed that this methodology can is also at times referred to as a grounded

theory approach to 'qualitative research' or 'interpretive research, and is an attempt to 'unearth' a theory from the data itself rather than from a pre-disposed hypothesis.As the purposes of social science research are complex and implanted with assorted issues, Babbie (1992), distinguishes three purposes of social science research. The purposes are exploratory, descriptive, and explanatory. An exploratory investigation is espoused when the knowledge of the topic or issues is in a preparatory stage or when the subject or issue is new and it is difficult to gather the data. An exploratory investigation is flexible and can address research questions of all sorts like *what, why, and how*. Within the common case, exploratory research is regularly used to generate formal hypotheses or speculations. Numerous researchers have connected exploratory research studieswith the conceptual framework working hypothesis.

Methods of Exploratory Research

For significant hypotheses in exploratory research,first of all, reviews of all relevant literature related to the subject must be carried out by the researcher. Thereafter all those who have conducted some sort of research dealing with the topic should be surveyed. The next step in this direction is that insight-stimulating cases should be analyzed. However special care ought to be taken to see that there should be no rigidity but careful flexibility should be observed. It is because the nature of the problem to be studied will always differ and so also the situation under which the study is being carried out. Raj (2002) has presented the methods of exploratory design as follows:

*Review of Literature:*One of the basics of exploratory research desirable is, to begin with, a survey of all significant literature related to the subject. All kinds of literature and analysts who have conducted some sort of investigation managing the subject ought to be checked. In this type of study, the hypothesis is however to be created and as such, it is most desirable that the researcher should gain the experience of the others. A legitimate review of the literature will protect the researcher from committing errors and mistakes, and save much of the endeavors, much of his time, energy, resources, and money.

Experienced Researchers Survey: It is indispensable in exploratory research that those persons should be surveyed who have already done some work in the area under study since they have enough knowledge to guide and practical difficulties to explain. They can be researchers, established social workers, professionals, senior officials, etc. Qualified persons must be selected hence proper identification should be made and a liaison established.

*Selection of Respondent:*An exploratory study, by all implies, is investigative and aims at providing insights, and only such respondents must be chosen who

can give genuine knowledge of the study, otherwise, the entire purpose of the study will be smashed.It should be ensured that well-informed respondents capable enough to provide enough information to the researcher should be selected. The selection of the wrong person may be dangerous for the whole research process.The selection of respondents can be both by direct as well as indirect means. By direct selection, we mean the selection of persons who are renowned for possessing information needed for the study and who are directly associated with the research. In indirect selection, there can be persons who are not directly involved. For example, if you are researching educational topics, the district education officers may be indirectly involved as respondents.

*Network of Investigators:*The researcher working beneath exploratory design requires the skill of good investigation and network building. In case he is sure about his hypothesis, at that point, the study will not be exploratory. Consequently, in the first instance, he will be required to spread his networkwide and collect data about his study from a wide range of areas. As he starts going profound within the study he will go on tightening the net and in general, he will begin coming to specific till he has reached a stage when he is in a position to finalize his theory.

*Proper Questioning:*Despite the selection of genuine respondents, only relevant and rational questions in carefully used words must be put before him so that the respondents may not be irritated by the use of the word and the question.

*Advantage of Experience:*Experiences are always advantageous in the formulation of hypotheses and the structuring of designs. Based on the experience of the researcher if a consolidated summary of available knowledge can be prepared then the effectiveness of various methods become clear and methods that are used for various methods can be understood.

Analysis of Insightful Stimulating Cases: Veryfew studies have been conducted in many areas. In such a situation, analysis of stimulating cases will be useful and intensive. There is no set of rules based on which investigator should select insight-stimulating cases. However, it will be better if he selects insight-stimulating cases that are new totheir kind and useful.

Characteristics of Exploratory Research Approach

Exploratory research is a methodological approach that investigates research questions that have not already been examined in profundity (depth). It is frequently used when the issue you're considering is new, or the data collection process is challenging in some way. The following characteristics help in the development of this approach:

→ The researcher has to be exceptionally alert and open, so that he may effectively choose the problem as soon as he gets some clue about the problem or issue. He ought to be able to gather adequate information for his research study.

→ The persons, groups, or situations that are proposed to be studied will have to be intensively studied. If any person or situation is involved in the research then the past and present should be properly studied, and interlinked and a perspective for the future will have to be considered.

→ The researcher should be able to provide a unified interpretation of the whole study. Investigating and interrogating the power of the investigator will determine the success of the research work.

→ For insight-stimulating studies sometimes views of marginal individuals are found very useful and interesting. Especially the marginalized people who are neither out of the community nor completely belong to that. They remain exposed to conflicting influences operating in different groups and can reveal dramatically major influences operating in different groups.

→ Certain problems are transitional but quite stimulating for the investigator.

→ Pathological cases provide another source of stimulating study. These are not normal but have some sort of abnormality in them. The study becomes very vital because these become responsible for social disorganization in many cases.

→ In many cases, simple cases also become stimulating and interesting but with time things may be different.

→ Studies of individuals also in many cases provide a stimulating study. Many people are successful in one situation but a failure in another situation. Some are successful in all situations. The study can be useful in finding out if this situation social conditions, circumstances, environments at home, etc. were responsible or not and to which extent these could be controlled.

→ The study of positions in different structures is another vital feature of the study. It means that the investigator should be able to understand the social structures and organizations. Only then he can be in a position to establish his relationship and come out with concrete results.

→ Investigator himself/herself can be a valuable source of insight information as he studies problems from different angles and is always placed in a particular situation.

→ Many things depend on the nature of the problem to be studied and also on the nature of the investigator investing in the problem. But it should be kept in mind that in exploratory research the aim of an insight-stimulating study is only to develop a hypothesis on scientific lines which provides powerful stimulation to the investigator for designing.

b. Descriptive and Diagnostic Research

The descriptive design comprises portraying the state of things as they are and utilizes polls and surveys as a portion of the information-gathering instrument. Descriptive studies are the ones that point to describing precisely the characteristics of a group, community, or people. The researcher may be interested in studying the people of a community, their age composition, caste-wise distribution, occupational, distribution, and so on. The objective of descriptive research is to describe things, such as the advertising potential for an item or the demographics and attitudes or demeanors of consumers who purchase the product.Descriptive studies frequently provide a bouncing pad for the study of new areas in social sciences. Most anthropological research may be characterized as descriptive in as much as the thrust is on depicting a rounded picture of a total culture or some aspect of it. As descriptive studies depict the characteristics of a certain specific situation, groups, and communities, the researcher may be interested to study the attitude of certain people towards certain problems and also their attitude and approach towards certain things. Usually so, firstly since a bit of descriptive research may be of vital scientific value for itself, even though it cannot be generalized to apply to other situations. It can give data that is of value in policy formulation since the notion of stages expects that we know almost the different stages within the assumed continuum.

Another course of research called diagnostic, may be concerned with finding and testing whether certain factors are related, e.g. Do more villagers than city tenants, vote for a specific party? Are individuals who have had co-educational backgrounds better balanced to married life than those who had not this background? As mentioned prior, both descriptive, as well as diagnostic,are consideredto share common requirements concerning the study design. So we may group these two sorts of research interests—descriptive and diagnostic, together since from the point of see of research procedure both these studies share significant characteristics (Bhandarkar et al., 2010). However, the procedure to be employed in the descriptive and diagnostic study be carefully planned since the aim is to get complete and accurate information. The research design must make a much greater provision for protection against prejudice or partiality.

What are the Key Steps in Descriptive and Diagnostic Study?

Since the basic idea is to have complete and accurate information, therefore, procedures for the study must be carefully planned. It should be remembered that usually, research studies take a very long time to complete, and as such, it is necessary that from the very beginning economic measures, those of time, money, and labor should be taken so that subsequently many problems do not

arise, consequently hampering the whole research study. There are certain fundamental questions embedded with steps in a descriptive and diagnostic study that are vital viz.

How to affect the economy? The questions must be specifically defined and the area of study should be restricted and the methods of data collection should be clearly understood. Effective techniques for data collection should be used to save time, money, energy, and resources.

*How to check bias?*In Descriptive and Diagnostic Studies bias plays a vital role and as such, it is necessary that along with the economy, all efforts should be made to check bias to make the study more scientific. Bias can be avoided by well-structured questions, well-trained observers, pretested data collection instruments, scientific sample design, good supervision of the field by the researcher, reliable and comprehensive data, alertness inthe analysis state, and the accuracy of tabulation.

a) The initialor *first*step in a Descriptive and Diagnostic study is to define the question that is to be answered. Unless the questions are formulated with sufficient precision to ensure the relevance of the data collected to the questions raised, the study will be fruitless. It is necessary to formally define the concepts entering into the question and also to indicate how the concept is to be measured.
b) The *second* step is that after the problem has been formulated specifically enough to indicate what data would be required; the methods by which data can be obtained must be selected. Each of the various methods of data collection—observation, interview, questionnaire—has its peculiar advantages and limitations. The researcher ought to consider the nature of the problem, the scope of the study, the nature of respondents, and the types of information needed, and given these, balancing the gains and losses should select one method of data collection. The stage of developing the data collection procedures is one of the major points which protects against bias. Questions to be asked to the respondents should be carefully examined for the possibility that their work may suggest one answer rather than another. After the construction of data collection instruments, they must be pretested. Pre-testing the data-collection instruments before they are used in the study minimizes the difficulties of comprehension, ambiguousness, and unfruitfulness of questions.
c) In the *third* step,a proper selection of samples must be made. It means proper selection of the sample is necessary. The sample should be selected in such as way that the findings based on it are likely to correspond closely to those that would be obtained if the *population*

wasstudied. The sample should provide the most accurate estimate of the population it represents, with maximum economy.

d) *The fourth* step is the best supervision. To obtain consistent data free from the errors introduced by different interviewers, observers, and others working on the project, it is necessary to supervise the staff of field workers closely as they collect and record information. Data ought to be supervised for completeness, comprehensibility, consistency, and reliability.
e) The *fifth* and final step is the process of analyzing the data after this involves coding the responses, i.e. placing each item in the appropriate category, tabulating the data, and performing statistical computations.

It is indispensable to note the contemplations, i.e. of the economy and the need for safeguards against error, in each of these steps. The considerations of economy indicate that analysis is planned in detail to the extent possible before work on it is stated. The most fundamental challenge to conventional ideas on research design has been the growing advocacy of systematic methods of problem-solving, borrowed from computer techniques and management theory, for the assessment of design problems and the development of research design solutions.

c. Experimental and Quasi-Experimental Designs

Experimental study designs primarily concern themselves with testing the causal hypothesis. It is with the help of this design that it becomes both possible as well easy to test the reality of the problem. The experimental design of the study attempts to solve the problem of controls that are exercised in the experiment. Auguste Comte, a French mathematician and the father of Sociology is given the credit for initiating this research design in social sciences.

The experimental studies constitute a sub-class of studies that attempt to deal with problems in which we ask how events are related to one another. Experimental studies deal with cause-and-effect problems; i.e. experimental studies are the ones concerned with testing the causal hypothesis. A hypothesis of causal relationship asserts that a particular characteristic or occurrence *(X)* is one of the factors that determine another characteristic of occurrence *(Y).* Before setting out to consider the kinds of research design that can test the hypotheses of this type, it is essential to talk about causality. The concept of causality is an extremely complex one.

Ackoff (1979)has said that experimentation is an activity. For Chapin (1917),the experiment is simply observation under the controlled condition. When

observation alone fails to disclose the factors that operate in a given situation, the scientists must resent (dislike) to experiment.

Shah (1977) has claimed that…. *the term experiment refers to that part of research in which some variables are controlled while others are manipulated and their effects on controlled variables are observed.* Selltiz et al. (1964) in their volume titled 'Research methods in Social relations' affirms……*in its broadest meaning, that an experiment may be considered as a way of organizing the collection of evidence to permit one to make inferences about the tenability of a hypothesis.*

All these definitions lead us to the conclusion that experimentation is simply observation and a way of organizing of collecting data. Nevertheless, it is also a reality that experimental designs are frequently advertised as the most rigorous or precise of all research designs or, as the gold standard against which all other designs are judged. In one sense, they probably are. If the researcher can implement an experimental design well, then the experiment is probably the strongest design concerning internal validity. Internal validity is at the center of all causal or cause-effect inferences. When researchers want to determine whether some program or treatment *causes* some outcome or outcomes to occur, then they are interested in having strong internal validity.

Nature of Experimental Studies

Experimental studies by nature are those which are concerned with the testing of causal hypotheses, but the concept of *causality* in itself is complex. Causality is a cause that is itself a phenomenon without reference to the ultimate cause of anything. Causation means sequence under definitely known conditions. There may be multiple conditions for the occurrence of any event or situation. Nevertheless,certain conditions are considered necessary for an occurrence. A necessary condition must occur if the phenomenon of which it is caused is to occur, e.g. if *'A'* is a necessary condition to '*B'* then *'B'* will never occur unless *'A'* has occurred. Such a relationship is regarded or known as a producer-product relationship.

Experimental design is a quite complex subject in its own right. There are lots of experimental design variations that attempt to achieve different things or solve different problems. Experimental research is commonly used in sciences such as sociology and psychology, physics, chemistry, biology, medicine, etc. It is a collection of research designs that use manipulation and controlled testing to understand causal processes. Generally, one or more variables are manipulated to determine their effect on a dependent variable.

Fundamental Outlines of Experiments

It is reasonably important to realize as an investigator that for experiments two groups are so chosen that in significant respects, they do not differ from each other. One of the two groups is the experimental group while the other is the control group. The experimental group (former) is exposed to casual variables while the other is not. The two variables are then compared in terms of dependent variables. With the help of this type of comparison, it becomes possible to test the type of evidence required for testing a casual hypothesis. It becomes practicable for the researcher to find out whether the effect occurs more or less frequently among subjects who have been exposed to the cause than among those who have not been exposed. Then another type of evidence that can be collected is whether a cause occurred before an effect or not. The third type of evidence that can be collected is whether other factors are determining conditions for a particular cause or not. The whole study helps in the collection of evidence in a manner that inferences of a causal relationship between independent and dependent variables can be drawn provided the groups are carefully selected.

Experiments are more often of quantitative nature than qualitative nature, although it happens. There are many examples of experiments. Some are not true experiments but involve some kind of handling to investigate a phenomenon. Others fulfill most or all criteria of true experiments. In the field of social psychology, the renowned experiments performed are:

- Stanley Milgram Experiment (Milgram, 1963): *Will people obey orders, even if dangerous?*
- Asch Experiment (1951):*Will people conform to group behavior?*
- Stanford Prison Experiment (SPE) by Philip Zimbardo in 1971:*How do people react to roles? Will you behave differently?*

Within the process of research, probably we just need to think almost the issue a little differently and unexpectedly. What if we could make two groups or contexts or settings that are as similar and comparable as we can make them? If we could be confident that the two situations are comparable, then we could administer our program in one (and see if the outcome occurs) and not give the program in the other (and see if the outcome doesn't occur). And, if the two contexts are comparable, then this is like taking both divergences in the path simultaneously! That's exactly what an experimental design tries to achieve. In the simplest type of experiment, we create two groups that are "equivalent" to each other. One group (the program or treatment group) gets the program and the other group (the comparison or control group) does not. In all other respects, the groups are treated the same. They have similar people, live in similar

contexts, have similar backgrounds, and so on. Now, if we observe differences in outcomes between these two groups, then the differences must be due to the only thing that differs between them -- that one got the program and the other didn't.

The vital question here is how do we generate two groups that are "equivalent"? The approach used in experimental design is to assign people randomly from a common pool of people into two groups. The experiment relies on this idea of random assignment to groups as the basis for obtaining two similar groups. Then, we give one the program or treatment and we don't give it to the other. We observe the same outcomes in both groups.

The key to the accomplishment of the experiment is in the random assignment. Even with random assignments we never expect that the groups we create will be the same. How could they be, when they are made up of different people? We rely on the idea of probability and assume that the two groups are probabilistically equivalent or equivalent within known probabilistic ranges. Subsequently, if we randomly assign people to two groups, and we have enough people in our study to achieve the desired probabilistic equivalence, then we may consider the experiment to be strong in internal validity and we probably have a good shot at assessing whether the program causes the outcomes.

Nevertheless, there are lots of things that can go incorrect. We may not have a large enough sample. Or, we may have people who refuse to participate in our study or who drop out partway through. Or, we may be challenged successfully on ethical grounds (after all, to use this approach, we have to deny the program to some people who might be equally deserving of it as others). Or, we may get resistance from the people in the study who would like some of their favorite people to get the program.

The Experimental Method

Speaking in a straightforward way the experimental method is a systematic, methodological and scientific approach to research in which the researcher manipulates one or more variables, and controls and measures any change or modifications in other variables. Experimental Research is often used where:

1. There is time priority in a causal relationship (cause precedes effect)
2. There is consistency in a causal relationship (a cause will always lead to the same effect)
3. The magnitude of the correlation is great.

The term experimental research has a variety of definitions. In the strict sense, experimental research is what we call a true experiment. This is an experiment where the researchers manipulate one variable, and control/randomizes the rest of the variables. It has a control group, the subjects have been randomly assigned between the groups, and the researcher only tests one effect at a time. It is also important to know what variable(s) the researcher wants to test and measure.

A very wide definition of experimental research, or a quasi-experiment, is research where the scientist actively influences something to observe the consequences. Most experiments tend to fall in between the strict and the wide definition. Physical sciences, such as physics, chemistry, and geology tend to define experiments more narrowly than social sciences, such as sociology and psychology, which conduct experiments closer to the wider definition.

Types of Experimental Designs

Any investigation conducted under scientifically acceptable conditions employs experimental methods. The classic experimental design designation is the 'methods used to gather information in experimental studies. The way a researcher classifies research subjects, based on conditions or groups, decides the type of research design the researcher should use. In common, there are three types of experimental designs which are as follows:

a. After only one experiment;
b. Measurement before—After Experiment; and
c. Ex-Post Facto Experiment

After-Only Experiment: Such experiments are carried out under social conditions which are not at all under the control of physical or natural conditions. There are two types of groups that are chosen for the study. Such groups can be those of similar thinking, similar occupation, or similar age. The group in which the experiment is carried out is called the experimental group, whereas the other is called the controlled group. The control here is taken in the sense that extra influences are prevented or checked to the extent possible. The experiment is carried out with the help of some predetermined methods and the results are measured. A comparative study is made of the results and the observation and measurements of the two groups. The changes that are caused in the experimental groups are recognized and accepted as the result of the variables that are responsible for the changes.

Before-After Experiments: In this type of experimentation also certain groups are selected and before any experimentsare carried out observations are made

about these groups. In the process, observations are also made after the experiment has been carried out and the differences between the two situations are observed. It is believed that differences between the two are on account of the implementation of the program. In this type of experimentation, it is not necessary, that both groups must be made either equivalent or similar. It is but, in the interest of the experimentation dependent variables should be measured for matching the cases in experimental and controlled groups.

Raj (2002) utters that in this type of design one group may be used before the measure, serving as a control, but before the measure control group may be one, yet after the measuring experiment may be on a different group which is assumed to be equivalent. Before and after measures may be taken both on the experimental group and control group. In this type of experimentation, there might be the involvement of two or more groups. Such an experiment can be with a single group, with one control group, with two controlled groups, or even with three controlled groups.The general weakness of this design is that it does not take into consideration external factors which influence the study between the period of experimentation i.e. before and after.

Ex-Post Facto Experiment: There are diverse complications and difficulties in social research. These problems can be studied only with the help of sufficient historical background e.g. why the revolutions take place in a particular country and whether the conditions for another revolution are mature in that or any other country. The researcher will have to depend on the experience because he can't have another actual revolution for his study. Not only can this, but dependence on historical background be possible only based on ex post facto experiment. The researcher in this experiment is required to select two or more groups for his/her study. Out of these two groups in one group the event has already taken place and the other is free from the happenings of that event though both are placed almost in similar situations e.g. the researcher can pick up for his study two states, which are similar and almost in all other respects.

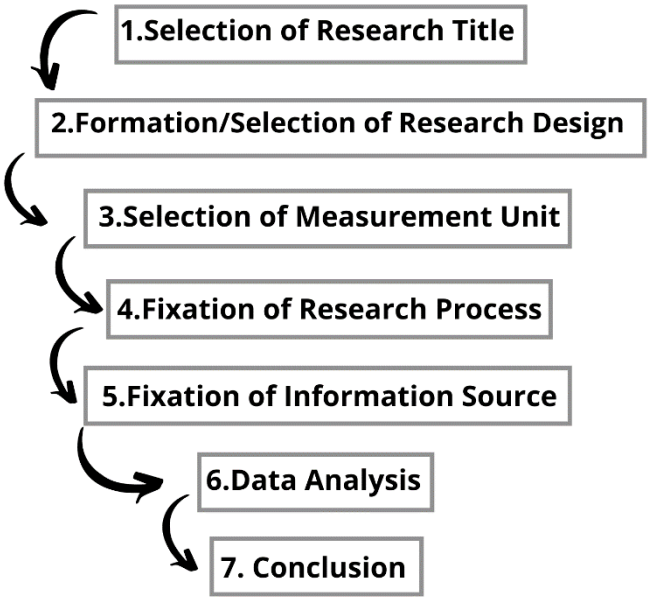
Even so, ex-post-facto experiments have their problems and weakness. Forexample, it is difficult to select two similar groups for study. There may be variations to varying degrees in two different conditions. Likewise, this experimentation can be done under certain controlled situations and it is always difficult to have control situations. Ex-Post facto experiment starts and puts pre-requisite conditions that there should be equality of groups but in social research, as we deal with human societies, it is impossible to bring equality among human beings and in human societies. This experiment believes that the groups chosen for experimentation should be homogenous or similar in all respects and if there is no similarity among the groups, then the results are not

likely to be dependable. But in reality, in practice, it may not be possible to have two homogenous groups.

Steps of Experimental Research

Experiments are piloted to be able to forecast phenomena. Typically, an experiment is constructed to be able to explain some kind of causation. Experimental research is important to society - it helps us to improve our everyday lives. The steps of experimental research can be presented in a modeled form which can be presented as follows:

Figure 3.1:**Model of Experimental Research Design Steps**



Indicating for further elaboration we can present the steps of experimental design in a different way which is as follows:

i. Identifying the Research problem

After determining the topic of interest the researcher tries to define the research problem. This helps the researcher to focus on a narrower research area to be able to study it appropriately. The research problem is often operationalized, to define how to measure the research problem. The results will depend on the exact measurements that the researcher chooses and may be operationalized differently in another study to test the main conclusions of the study. Defining the research problem helps the researcher to formulate a research hypothesis, which is tested against the null hypothesis.

ii. Constructing the Experiment

There are a variety of facets to recall when constructing an experiment. Planning makes certain that the experiment is carried out appropriately and that the results reflect the real world, in the best possible way.

iii. Sampling Groups to Study

Sampling groups in the approved manner is particularlyvital when we have more than one condition in the experiment. One sample group often serves as a control group, whilst others are tested under experimental conditions. Deciding on the sample groups can be done by using many different sampling techniques. Population sampling may be chosen by several methods, such as randomization, *quasi-randomization,*and pairing. Reducing sampling errors is very important forgetting valid results from experiments. Often the researchers adjust the sample size to minimize the chances of random errors. Here are some common sampling techniques:

- Probability sampling
- Non-probability sampling
- Simple random sampling
- Convenience sampling
- Stratified sampling
- Systematic sampling
- Cluster sampling
- Sequential sampling
- Disproportional sampling
- Judgmental sampling
- Snowball sampling
- Quota sampling

iv. Creating the Design

The research design is selected and grounded on a variety of factors. Important factors when choosing the design are feasibility (viability), time, cost, ethics, measurement problems, and what the researcher would like to test. The design of the experiment is critical for the validity of the results.

Typical Designs and Features in Experimental Design:

- *Pretest-Post Test Design*: Check whether the groups are different before the manipulation starts and the effect of the manipulation. Pretests sometimes influence the effect.
- *Control Group*:Control groupsare designed to measure research bias and measurement effects, such as the Hawthorne Effect or the Placebo Effect. A control group is a group not receiving the same manipulation

as the experimental group. Experiments frequently have 2 conditions, but rarely more than 3 conditions at the same time.

- *Randomized Controlled Trials*: a)Randomized Sampling.b)Comparison between an Experimental Group and a Control Group.3) Strict control/randomization of all other variables
- *Solomon Four-Group Design*:a)With two control groups and two experimental groups. b)Half the groups have a pretest and half do not have a pretest. This is to test both the effect itself and the effect of the pretest.
- *Between Subjects Design*: Grouping participants to different conditions.
- *Within Subject Design*:a)Participants take part in different conditions. b)Repeated Measures Design
- *Counterbalanced Measures Design*: Testing the effect of the order of treatments when no control group is available/ethical
- *Matched Subjects Design*: Matching Participants to Create Similar Experimental- and Control-Groups
- *Double-Blind Experiment*: Neither the researcher nor the participants, know which control group is. The results can be affected if the researcher or participants know this.
- *Bayesian Probability*:Using *Bayesian probability* to "interact" with participants is a more "advanced" experimental design. It can be used for settings wheremany variables are hard to isolate. The researcher starts with a set of initial beliefs and tries to adjust them to how participants have responded

v. Pilot Study

For a better result, it may be practical to first conduct a pilot study or two before the researcher does the real experiment. This ensures that the experiment measures what it should and that everything is set upright. Minor errors, which could potentially destroy the experiment, are often found during this process. With a pilot study, the researcher can get information about errors and problems, and improve the design, before putting a lot of effort into the real experiment.If the experiments involve humans, a common strategy is to first have a pilot study with someone involved in the research, but not too closely, and then arrange a pilot with a person who resembles the subject(s). Those two different pilots are likely to give the researcher good information about any problems in the experiment.

vi. Conducting the Experiment

An experiment is typically carried out by controlling a variable, called the independent variable, influencing the experimental group. The effect that the researcher is inquisitive about, the dependent variable(s), is measured. Recognizing and controlling non-experimental factors which the analyst does

not want to influence the effects, is crucial to drawing a substantialconclusion which is regularly done by controlling variables, if possible, or randomizing variables to minimize effects that can be traced back to third variables. Analysts only want to measure the effect of the independent variable (s) when experimenting, permitting them to conclude that this was the reason for the effect.

vii. Analysis and Conclusions

In quantitative research, the amount of data measured can be enormous. Data not prepared to be analyzed is called raw data. The raw data is often summarized as something called output data, which typically consists of one line per subject (or item). A cell of the output data is, for example, an average of an effect in many trials for a subject. The output data is used for statistical analysis, e.g. significance tests, to see if there is an effect. The analysis points to conclude, along with other observations. The researcher might generalize the results to a more extensive phenomenon in case there's no sign of confounding variables undermining the results. If the researcher suspects that the effect stems from a different variable than the independent variable, further investigation is needed to gauge the validity of the results. An experiment is often conducted because the scientist wants to know if the independent variable is having any effect on the dependent variable. Variables correlating are not proof that there is causation.

Quasi-experimental Design

A quasi-experimental design could be a major design used in research. Since Campbell and Stanley (1963) presented the term quasi-experiment, it includes two interrelated topics: the theory of the validity of causal inferences and the taxonomy of the research designs that facilitate examining a causal hypothesis. A quasi-experimental design is a design that looks a bit like an experimental design but lacks the key ingredient -- random assignment. Campbell and Stanley (1963)have referred to them as *queasy* experiments because they give the experimental purists a queasy (sick) feeling. Concerning internal validity, they often appear to be inferior to randomized experiments. Something is compelling about these designs; taken as a group, they are easily more frequently implemented than their randomized cousins.

In recent days' researchers have moved beyond the traditional thinking on quasi-experiments as a collection of specific designs and threats to validity toward a more integrated, synthetic view of quasi-experimentation as part of a general logical and epistemological framework for research. To support this view that the notion of quasi-experimentation is evolving toward increasing integration and sophistication.

One premise that underlies most of the others and that illustrates increasing awareness of the tentativeness and imperfection of quasi-experimentation concerns the significance of human judgment in research. Evidence bearing on a causal relationship emerges from many sources, and it is not a small matter to integrate or resolve conflicts or inconsistencies. In recognition of this problem of evidence, researchers begin to address causal deduction as a psychological issue that can be elucidated by cognitive models of the judgmental process. Researchers now are identifying more clearly the sociological bases of scientific thought and the fact that science is at its root a human enterprise. Hence, a positivist, mechanistic view is all but gone from quasi-experimental thinking, and what remains is a more judgmental and more scientifically sensible perspective. It is also vital in learning quasi-experimental methods, it is needed to break away from a taxonomic design mentality and emphasize design principles and issues that cut across the traditional distinctions between true experiments, non-experiments, and quasi-experiments.

It is to be remembered that a theory-driven approach to quasi-experimentation will be useless unless we can demonstrate that the program was carried out or implemented as the theory intended. Over and over, experiences with quasi-experimentation have shown that even the best-laid research plans often go twisted in practice, sometimes with terrible results. Regarding the establishment of a causal relationship to its generalizability, all the developments point to an increasingly realistic and complicated life for quasi-experimentalists. The general picture that emerges is that all quasi-experimentation is judgmental. It is based on multiple and varied sources of evidence, it should be a multiplicity in realization, it must attend to process as well as to the outcome, it is better off when theory-driven, and it leads ultimately to multiple analyses that attempt to bracket the program effect within some reasonable range.

At the end in conclusion it can be said that when deciding on a study design, many factors must be taken into account. Different types of studies are subject to different types of bias. For example, recall bias is likely to occur in cross-sectional or case-control studies where subjects are asked to recall exposure to risk factors. Subjects with the relevant condition (e.g. breast cancer) may be more likely to recall the relevant exposures that they had undergone (e.g. hormone replacement therapy) than subjects who don't have the condition.

d. Cross-Sectional and LongitudinalResearch Design

Cross-sectional design studies are the diverse character of the people, community, group, etc. made at the same time. Information from diverse groups collected from different sources is analyzed comparatively. Conclusions are drawn after a comparative study of the groups. As comparative studies of

diverse groups are made at the same time hence this method is called cross-sectional research design. In the Nepalese context, comparative studies can be made of the diverse ethnic groups, minorities, and majority communities, and deductions are drawn. Diverse problems of diverse societies namely geographical variations, gender, unemployment, militancy, social unrest, and problems of the ethnic groups can be adopted for comparative studies, etc.

On the other hand, in the context of *longitudinal designs,* it ought to keep in mind that longitudinal studies take place over time, often over intervals of many years, to explore long-term trends. In such type of study usually, the same sample is used to monitor phenomena such as changing social attitudes, with the resulting data usually taking a quantitative form. Such designs are determined by characteristics such as age, as with the child and health education survey, or by family and school. Some longitudinal research can yield qualitative data as with some participant observation studies which have looked at groups over several years, examining, for example, the effects of aging on delinquent youth behavior. A longitudinal study research subjects over two or more points in time; by contrast, a cross-sectional study assesses research subjects at one point in time.

Longitudinal designs have many advantages for the research: in this way change over time within the same group can be explored, avoiding the view of research as a *photograph or snapshot.* They also allow a larger number of variables to be considered and are seen as valid in that they overcome the need for respondents to rely on their own imperfect (fallible) memories. However, they can be problematic in that they make demands of the group research to be available over long periods, during which the group's willingness to take part in the project may change. There is also a strong risk that the respondent's attitude to research may change as the group becomes more aware of how the research is being used, and how they appear in it.

e. Historical Research Design

Historical research design or chronicled inquirydesign is related to history – that's the thinking about the past. It can be utilized for the investigation and thinking about past episodes, occasions, etc. History is the reflection of the past and through it, we can consider the happenings of the past, major issues, and social and social issues of the display which are having their root in the past. The occurrence and the happenings of the past can make us alarm to ensure ourselves and take safeguards from the severe substances of the past. It is accepted that the old Greek rationalist Aristotle had, to begin with of all, utilized this strategy for considering the past society, patterns, etc. Another Greek rationalist Plato conducted numerous chronicled considers on different subjects.

Early Greek philosopher Herodotus (484-425 B.C.) and the Roman historian Tacitus, wrote many of the only surviving contemporary accounts of several ancient peoples, and tribes. Ancient scholars of history had moreover utilized this plan for the consideration of different chronicled themes. Ancient and medieval scholars and researchers may be considered precursors or the ancestors of human studies or anthropology, insofar as they conducted or composed detailed studies about the traditions of diverse people groups.

Herodotus was well-traveled and had a wide knowledge of the races and cultures of the world. Herodotus was also called the father of history in ancient Greek literature. Herodotus first traced and devised some of the persisting problems of society and culture. He came into contact with more than fifty types of people and he described their way of life, traditions, and civilization. He was an ancient ethnographer who studied different facets of ancient people and tribes. Hence, Herodotus may be also called the father of Greek Ethnography, instead of the father of history, nevertheless, he conducted historical studies using historical designs on society and culture-related issues.

In recent days' historical design has been accepted and used by sociologists for the study of various topics and issues. In the process of historical design, secondary sources play a vital role. Secondary historical sources like historical documents, pillar manuscripts, official statistics, literary articles, and old diaries can be used for the descriptive and analytical study of diverse social, cultural, and economic issues. Although, the historical study seems straightforward and over-simplistic, however, in a factual sense, it is an exceedingly complicated task to sketch the historical design. The general framework or the steps for drawing historical design is as follows……...

Step 1: Formulation of the problem
Step 2:Identification of information sources and the collection of information
Step 3: Editing the information and its sources
Step 4: Data collection and analysis

Broadly, historical research is qualitative research thatcomprises examining past events to draw conclusions and make predictions the key steps in historicalresearch are to formulatethe idea, formulate a plan, gather data, analyze data, and analyze the sources of data.

4

SOCIAL RESEARCH MEASUREMENT AND RELATIONSHIPS

Measurement is the process by which a researcher portrays and attributes meaning to the key facts, concepts, or other phenomena that he or she is exploring. It is the procedure by which the main specifics, notions, or occurrences are examined. At its center, measurement is about defining one's terms in an as clear and correct way as possible. Of course, measurement in social science isn't exceptionally as clear as using a few predetermined or generally agreed-on tools, such as a measuring cup or spoon, but there are several fundamental occupants on which most social researchers concur when it comes to measurement. In measurement three categories of things that social researchers measure are: *observational terms, indirect observables, and constructs*. This chapter explores those as well as a few of the ways that measurement might vary depending on the researchers' approach to the study of the topic.

4.1 What Do Social Scientists Measure?

The question of what social researchers measure can be answered by asking oneself what social researchers study. Understanding how measurement works in research helps us answer different sorts of questions. Social researchers will measure everything that they have an interest in examining. For example, those who are curious about learning something about the correlation between *social class and levels of joy* (happiness) must develop some way to measure both social class and joy (happiness). Those who wish to understand how well immigrants cope in their new locations must measure immigrant status and coping strategies. Those who wish to understand how a person's gender shapes their workplace experiences must measure gender and workplace experiences. You get the idea. Social scientists can and do measure just about anything you can imagine observing or wanting to study. Of course, some things are easier to observe, or measure, than others, and the things we might wish to measure don't necessarily all fall into the same category of measurable.

4.2 Framing Concepts: Types and Difficulties in Definition

One of the least discussed topics in social research is how to construct the scheme for the research venture in the first place. Reading sufficient research in

an area of interest may not only solve the problem. One thing that can be done is to learn a better idea of how expert researchers usually generate research ideas by first learning the idea of concepts. In each research, a few concepts are perpetually utilized. Theseare essential components of scientific study but, by and large, these are reflections and represent as it were certain perspectives of reality. Concepts are based on our experiences and hence can be based on real phenomena. They are generalized ideas of something of *meaning* and must be communicable. A few examples of concepts on demographic measures are education, income, age, etc. In a research venture, these ought to continuously be used in the same sense without any variation, as variation in their use in the same project is bound to result in a lot of disarray and confusion. Different definitions of the term concept have been given by distinctive scholars, but it is usually troublesome to have a clear definition. For Kerlinger (1986), the terms *concept* and *construct* have similar meanings. However, there is a very basic distinction. A concept communicates an abstraction shaped by generalization from particulars. A construct may be a concept.

Concepts and Phenomenon:Whether it may be a simple physical or social science, each one has its terms or concepts for communicating its findings. Bhandarkar et al. (2010) state that a concept is an abstraction of observed things, occasions or events, or phenomena. These are invariably used by researchers. This offers assistance in understanding the phenomenon or such aspects of the phenomenon that the researcher is attempting to understand or investigate. These are, hence, used as images or symbols of a phenomenon. In some cases, concepts and phenomena are confused and blended. Since all the concepts are deliberations and abstractions and don't represent reality as an entirety, but only its certain aspects hence it becomes fundamental to clearly understand which aspects ought to be studied and develop concepts for them. The inclination to assume that concepts exist as a phenomenon leads to numerous errors.

A concept isn't a phenomenon and failure to recognize this is usually called the false notion or *Fallacy of Ramification*, i.e. treating abstractions as if they were an actual phenomenon. Since both concepts and phenomena are abstractions, they have meaning only within some frame of reference and a few theoretical systems or frameworks. The term concept could be a short-hand representation of an assortment of actualities or facts. Its purpose is to simplify consideration by subsuming a few occasions and events under one general heading. Wherever any degree of deliberation or abstraction is involved, whether, in sophisticated logical scientific perception or observation, interpretative understanding, or straightforward commonsense statements of fact, concepts are continuously used. It has been appropriately commented by sociologists that there's no empirical information that's not in some sense and to some degree conceptually formed.

Abraham Francis verbalizes that the important terms of any science are noteworthy because of their semantics (they) reach out to the world which gives the science its subject matter. The implications of such terms result from a process of conceptualization of the subject matter. In this process, the things considered are classified and analyzed; several things are grouped and particular things are assigned to the several groups to which they belong. The concept 'Paranoid' for example, puts into a single class a certain set of people and is itself analyzed into such patterns as delusions of persecution, grouping a set of actions, verbal or otherwise, as the case may be, and without regard to the actors performing them.

Differences between Concepts and Facts: On different occasions,*Concepts* and *Facts* are not differentiated from each other though there is a clear distinction between the two. The concepts symbolize the empirical relationships and phenomena which are stated by facts. Fact is thus a logical construct of concepts. In other words, concepts are not basic to the scientific method alone; they are the foundation of all human communication and thought.

What is a Concept?

In research, *concepts* are phenomena or abstract ideas or thoughts being studied e.g. educational accomplishments, and *variables* are characteristics of a concept e.g. performance at school, while *indicators* are ways of quantifying or measuring the variables e.g., annual grade reports.According to Kerlinger (1986), a concept expresses an abstraction formed by generalization from particulars e.g., weight, energy, etc. concepts. Similarly, achievement, intelligence, aggressiveness, conformity, and honesty are all concepts that are used to express varieties of human behavior. Similarly, achievement, intelligence, aggressiveness, conformity, and honesty are all concepts that are used to express varieties of human behavior.

Young (1982) characterizes a *concept* as each new class of data, isolated from a name, or a label—in short, could be a concept. A concept is in reality a definition in shorthand of a class or group of facts. Truancy (absence), animosity and aggression, frustration, attitude, individual, and uneasiness or anxiety are illustrations of concepts into which are condensed a few phenomena or events under one general heading. Consequently, a concept could be a methodological necessity for any study. It will be disastrous if the research concept did not mean the same to others, as it means to him; because any gap in understanding the same concept in two different ways is bound to create serious communication problems. It makes clear that it is not so easy to define a concept particularly when the problem of defining a concept with precision comes. Concepts may be

used in different contexts and situations. Not only in expressing a term but a concept can also be used in research activities. For example, concept mapping can be used by research teams to help them clarify and map out the key research issues in an area, and to help them operationalize the programs or interventions or the outcome measures for their study. The concept mapping method isn't the only method that might help researchers formulate good research problems and projects. Practically any method that's used to help individuals and groups to think more effectively would probably be useful in research formulation.It is very difficult to express a concept with clarity. There are diverse reasons for this which are as follows:

a. *Concepts materialize from shared experiences:* Concepts develop from shared experiences subsequently there are distinctive terms and concepts which don't find an equivalent in other languages as well even though there may be nearly similar words for the same in other languages (dialects).
b. *Concepts in different frameworks:*When a concept is developed, it is done with certain objectives and is expected to be used within a particular framework in which it is required to suit. But over time, the same concept is begun to be used in different frameworks, hence creating confusion.
c. *Source of concepts:*Many concepts have their source (origin) in different languages mainly Latin, Greek, English, etc. Because of this, it becomes really difficult to correlate these backgrounds and then give a proper definition of all the concepts.
d. *Different terms refer to the same problem:* Problems arise when different terms refer to the same phenomenon. It is because concepts have developed at different times, in different languages and different parts of the world, and under different experiences.
e. *Varying meaning of concepts:* With time there occurs a change in knowledge and likewise meanings of the concepts also change. Since the old writings lose their meanings, hence, much confusion arises and thus meanings of concepts go on changeover time.
f. *Concepts and communication:* Proper definitions and communications of concepts are necessary. Proper definition communicates in a single sentence, which otherwise will be communicated in volumes. The definitions in fact can be characterized as shorthand of any science and an easy method of communication between scientists.
g. *Level of explanations of concepts:* There are two levels of explanation of concepts, namely, ‘formal definition’ and ‘operational definition’. Formal definition aims at conferring the general nature of the process in which scientists are interested. Operational definition on the other hand points to making conceivable the collections of data that every researcher is prepared to accept as an indicator of concepts. Even though in numerous situations, concepts appear oversimplified, when these are conceptualized numerous

challenges in operations appear. For illustration, when Emile Durkheim began his research study on suicide, as he continued with his research he found that the concept of suicide was more difficult to define than he had thought at the start.

The Procedure of Defining Concepts

It is complicated to define concepts and the tasks can become comparatively easy if a procedure is followed for determining these. It will be useful if in the first instance all available definitions of a concept, which is desired to be defined, are collected and put in some order. Thereafter an exercise is made to find out the core of the meaning to which most of these definitions point out. After this has been done, a tentative definition based on these cores, etc, should be tried, and then it may be seen if that suits the purpose and objective for which the attempt was made. The new definition should be expressed for critical examination of those who matter in the field of study. After the comments have been received and considered, some final definitions should be attempted and accepted for research work.

Concepts and Communication*:*In social science, each concept must be communicable and as such should not be unclear. Goode and Hatt (1952) affirm that, deriving and clarifying the elements of such a construct are the major processes of definition, basic to the general problem of conceptualization. Appropriate definitions and communications of concepts are indispensable. Appropriate definition communicates in a single sentence, which if not will be communicated in volumes. The characterization of information can be characterized as shorthand of any science and a straightforward manner of communication between scientists.

Re-conceptualization:Each topic has certain concepts and there are challenges in characterizing some concepts. Over time, knowledge progresses and a few of the difficulties vanish, whereas others show up to need a solution.Owing to the complications with research that may create confusion, it must be ensured that the terms are clear and cause little confusion. It is important to illustrate that many conceptual problems are bypassed as science develops. However, a researcher should not be lost in the manipulation of concepts. Re-conceptualization is a process and procedure for clarifying the thinking of a researcher about concepts used in a research problem. This process of clarification can be done through different stages namely:

- A preliminary statement of the project should be prepared.
- A list of all major concepts in the statement should be selected from the statement.

- An analysis of the apparent meaning and elements of the concepts should be made.
- Published literature in which these concepts have been used may then be studied to discover the various usages of the terms.
- Afterward, the task will be relating a phenomenon to similar other phenomena which have been described by other terms and often in other fields.
- A final operation that can be mentioned of particular use for the theoretical fruitfulness of the concept is ascertaining the next higher or lower level of generalization of the concept.
- Categorization of Concepts is necessary. The concepts can broadly be divided into two categories namely, concepts by postulation and those by intuition. Concepts by postulations have no meaning except in the context of the specific theory. On the other hand, a concept by intuition denotes something which is immediately apprehended. The meanings of these concepts are constant to whomever one uses them.

Features of a Good Concept

As a concept fulfillsstrategy, it should be flexible and scalable. A well-balanced and good concept has many features. The vital features of a good concept are as follows:

- The concept should be clear and definite, i.e. a good concept must be precise.
- A concept should be clear and precise.
- A good concept should be comprehensive.
- A good concept should avoid multiple meanings and as far as possible a concept should convey exactly what was intended when it was coined.
- The use of concepts in a scientific study creates problems. Whereas the concepts are vocabulary as well as the short law of a researcher, any blind adherence to them is likely to do more harm than good to the search.
- A precise definition or explication of concepts being utilized by the researcher is a natural and sensible methodological requirement for any study.

As concepts are based on human experiences, they can be based on real phenomena and a generalized idea of something of meaning associated with research. Any research includes numerous variables. Some of the key concepts related to research are given below:

a. Hypothesis

After hypothesis formulation, the following coherent step is to define a hypothesis. From the network of associations drawn among the variables, certain testable hypotheses can be generated. By testing the associations among variables through appropriate measurable statistical analysis, it is conceivable to get some reliable information on what sorts of relationships exist among the variables working in the problem situation. A hypothesis providesan opinion to the inquiry and if found on sufficient previous knowledge, guides the line of investigation. A hypothesis is a statement about the relationship between two or more variables that need to be investigated for its truth. If the relationship between two variables acts as the hypothesis predicts, then the hypothesis is supported and a new theory is suggested. Kerlinger (1986) defines a hypothesis as the most powerful tool man has invented to achieve dependable knowledge.

For Sekaran (1992) a hypothesis is an educated guess about a problem's solution. It can be defined as a logically conjectured relationship between two or more variables in the form of testable statements.Hillway (1964) asserts that a hypothesis may be conveniently considered as a tentative or working assumption, and the theory as the surviving or final hypothesis is most defensively supported by all the evidence. But since knowledge arrived at through the scientific method is subject to revision in the light of new data, a theory is in an only sense always only a working assumption, so the conventional distinction between hypothesis and theory (based on increasing adequacy of evidence and hence a greater certainty) is a relative one. For all practical purposes, the duality of the term "hypothesis" need not concern the research scholar except to serve as a salutary reminder that no conclusion reached by the scientific method is necessarily a fixed and final truth.

Hypothesis generation and testing require an understanding of deductive and inductive reasoning. The two major types of reasoning in social science research are ***deduction and induction***. The deduction is the process of concluding by interpreting the meaning of the results of the data analysis. In this form of reasoning, one goes from general knowledge to specific knowledge. Quantitative research usually follows the deductive and qualitative follow the inductive. In quantitative methods, attempts would be to test the hypothesis and /or prove or disprove the theory. Qualitative research, on the other hand, builds theory moving from observations and open questions to more general conclusions. In other words, qualitative research applies an inductive process to conclude. For example, let's take the following cases:

Case A*:* If Ramesh has a place in one of the political parties in Nepal, at that point he was in favor of drafting a new constitution. He belongs to UML (United Marxist Leninist party). Subsequently, he was in favor of drafting a new constitution.

Case B*:* Ramesh and Rita are partnered with UML. Hari and Sita are related to NC (Nepali Congress), and Deepak and Divya are related to the Maoist party. They all are in favor of drafting a constitution.

→ Hence, **all Nepalese parties are in favor of drafting a constitution**

Case "**A**" exemplifies deductive reasoning and case "**B**" exemplifies inductive reasoning.
A widespread puzzlement is that a hypothesis could be proven or tested. Generally, a hypothesis is used to make predictions that can be tested by observing the outcome of an experiment. If the outcome is inconsistent with the hypothesis, then the hypothesis is rejected. However, if the outcome is consistent with the hypothesis, the experiment is said to support the hypothesis. This careful language is used because researchers recognize that alternative hypotheses may also be consistent with the observations.

A hypothesis can never be proven, but maybe only supported by surviving rounds of logical scientific testing and, in the long run, getting to be broadly thought of as true (or better, predictive), but this is not the same because it has been proven. A valuable hypothesis permits prediction and within the accuracy of observation of the time, the prediction will be verified or confirmed. As the accuracy of observation improves with time, the hypothesis may no longer provide an accurate prediction. In this case, a new hypothesis will arise to challenge the old, and to the extent that the new hypothesis makes more accurate predictions than the old, the new will supplant it. Based on the objectives and conceptual framework of the research a ***hypothesis*** is raised. A hypothesis is the decisive part of a research proposal as it defines the proposal, guides arguments, and inquiry, and provokes the interests of the critic. If the hypothesis does not work well, no matter how powerful the rest of the proposal is, the proposal is dubious to be successful. Depending on the research objectives and requirements of the solicitation, the hypothesis may be stated. A*hypothesis* represents a declarative statement of the relations between two or more variables.

Settling on whether to use questions or hypotheses in a research study depends on factors such as the subject, the purpose of the study, the nature of the design, and the methodology. *Questions* are relevant to normative or census-type research (How many of them are there? Is there a relationship between them?).

They are most often used in qualitative inquiry, although their use in quantitative inquiry is becoming more imperative. *Hypotheses* are relevant to theoretical research and are typically used in quantitative inquiry in common.

Problems in the formulation of Hypothesis

It is essential to design a hypothesis for research, but it is not easy to formulate a good hypothesis. Many problems appear at the time of formulating a hypothesis. Mainly there are three difficulties, which arise when one thinks of the formulation of a hypothesis. These are:

- ❖ Absence of knowledge or clear theoretical framework.
- ❖ Lack of ability to logically use the theoretical framework; and
- ❖ Inability to phrase properly the hypotheses on account of lack of acquaintance with available research techniques.

Types of Hypothesis

A hypothesis is of several types. Though the hypothesis can be of several types, yet to separate them based onthe level of abstraction will be more useful than on any other basis. On this basis hypothesis may be classified as under:

I. Existence of empirical uniformities

Some hypotheses state the existence of empirical uniformities. By and large, these represent a scientific examination of common sense propositions. These deal with a problem about which some commonsense observations already exist. Such studies can be the distribution of a particular class of people in an area, behavior patterns of specific groups, etc.

II. Complex ideal type hypothesis

These are the types of hypotheses that aim at testing the existence of logically derived relationships between empirical uniformities. The level of hypothesis moves beyond the expectations of simple empirical uniformities, e.g. it is not essential that all areas must be natural areas area or that all members of minority groups must be marginal men. For proving these hypotheses is essentially useful. Goode and Hatt (1952)assert that the function of such a hypothesis is to create tools and problems for further research in otherwise very complex areas of investigation.

III. Relation of analytic variables

Certain variables are concerned with the relation of analytic variables. These hypotheses occur at a level of abstraction beyond that of ideal types. This type of hypothesis is more abstract than the others and also more sophisticated. It also

has the most flexible mode of formulation. At this level, the number of variables can be abstracted and the study is limited by theory since the theory grows by the process itself, and opportunities for new research are being constantly created.

The Research Hypothesis and the Null Hypothesis

The following are the two methods of stating the research hypothesis and the null hypothesis:

I. The ***research hypothesis*** states that the expectations of the researchersare in positive terms and identifies the variables for conditions which, in a causal relationship, will be advanced to account for the results and is often derived from theory.
II. The ***null hypothesis*** **--**the hypothesis of 'no relationship or difference'—is the one tested statistically. It is an arbitrary convention hypothesizing that any relation or difference in the findings is due to chance or sampling error and puts this supposition to a probability test. Theoretically, it is a hypothesis set up for possible rejection and though the relationship or margin of difference need not be zero, it frequently is.

b. Data

Data is the information necessary for conducting research. It is the fact or the raw material necessary for conducting research. Data is the backbone of research in the absence of which no research can be imagined. A datum (singular of data) is what is observed, is manifest, or phenotypical. Data in social sciences, as in other sciences, are based on our senseobservations. Collecting data is the collecting link to the world of reality for the researcher. The data collection activity consists of taking ordered information from reality and transferring it into some recording system so that it can be later examined and analyzed for patterns. It is from these patterns that social behavior can be understood and predicted. Research can be interpreted as having a content of data and a process of methodology. In the lack of data, the methodology cannot be utilized to bring us to the conclusion, that the hypotheses suggest.

Types of Data

There are many types of data. These can be categorized in general terms of their meaning, sources, etc. However, the basis to categorize the nature of data has to be understood properly. There are two categories of data which are as follows:

- **Facts**

Facts describe tangible things. Facts measure anything that exists or has existed. A fact is thus described as a thing done, on an actual occurrence, or a piece of information presented as having objective reality.

- **Opinion**

An opinion is a view or judgment formed in the mind about a particular matter; a belief stronger than an impression and less strong than positive knowledge.

Based on sources of data, it can be divided into two types namely:

(i) Primary data
(ii) Secondary data

Primary data: Researchers have two sources of data available to them: information they have generated themselves for their specific research purposes is called *primary data* and the already existing data on the topic is called *secondary data*. Primary data is first-hand data collected directly from the field. They are the original data gathered by the researcher for the research project at hand. Hence, these data are collected for meeting the specific objectives of the study. Hence, it is more reliable. It can result from, for example, the employment of questionnaires—structured, semi-structured, and unstructured interviews; observation techniques, focus group discussions, observation, etc.

Secondary data: Secondary data is second-hand data collected from a library or other sources. They are often in published form, but, unpublished data such as records, reports, or statistics compiled by others before your study are also secondary data. It can be more or less anything else: statistics produced by the state (for example census data) and by private companies, as also diaries, letters, newspapers, books, and television (the study of mass media is called content analysis),Web sources, etc.Secondary data are cheap, quick, and easy to obtain, but have the serious disadvantage of not having been produced by the researchers of the specific field. They are hence unlikely to match sociologists/anthropologists and the requirements of the concerned discipline exactly. Both primary and secondary data can be qualitative or quantitative.

a) **Qualitative data**: Such type of data deals directly with people's experiences, as well as their feelings about, and interpretations of, the situations they find themselves in. Such type of data is collected through in-depth contact with respondents.
b) **Quantitative data**:Any data or information used for research purposes whether derived from primary or secondary sources can be described as

quantitative and qualitative. Quantitative data is usually presented in numeric form and derives from large-scale survey methods.

The study is classified as qualitative if the purpose of the study is primarily to describe a situation, phenomenon, problem, or event, and the information is gathered through the use of variables measured on a nominal scale (good, better, satisfactory, poor, etc.), or ordinal scale (first, second, third, etc.) i.e. qualitative measurement scales; if the analysis is done to establish the variation in the situation, phenomenon or problem without quantifying it. The description of an observed situation, the historical enumeration of events, and an account of different opinions people have about an issue are examples of qualitative research.

Best and Kahn (1998) state that qualitative research uses non-quantitative methods to describe what is. It uses a systematic procedure to discover non-quantifiable relationships between existing variables. Therefore, it applies to phenomena that can be expressed in terms of quality. It is imperative in behavioral sciences where the aim is to discover the underlying motives of human behavior. Through such research, we can analyze the various factors which motivate people to behave in a particular manner or which make people like or dislike a particular thing. By nature, human beings are curious to see, hear, and learn about the world around them. However, they differ in the ways they interpret worldly objects and events, and consequently, their action differs. Subjectivity is an integral part of people's decision-making, knowingly or unknowingly. Qualitative research is based on this premise. It is needed to remember that qualitative and quantitative research methods are not mutually exclusive. In general, whereas qualitative methods revolve around describing, understanding, and explaining social phenomena, quantitative methods are more aboutexplaining, predicting, and verifying them.

Nature of Qualitative Data

a. Qualitative information is grounded in a philosophical position, which is broadly interpretive in the sense that it is concerned almost with how the social world is deciphered and interpreted, understood and experienced, or created.

b. Qualitative analysts look for answers to their questions within the genuine world. They assemble what they see, listen to, and studied from the individuals and places and occasions, and exercises……they learn about some aspects of the social world and produce new understandings that can be used by that social world.

Qualitative and quantitative data have their strengths and weakness. However, the choice of qualitative and quantitative methods largely depends upon the main purpose of research, discipline, and theoretical stance of the researcher. These methods observe different realities or different aspects of reality.

Basic Qualitative Concepts

The qualitative category is comprehensive and covers a wide variety of basic concepts. Some of the basic qualitative research concepts as presented by Ulin et al. (2002) are as follows:

a. Qualitative research is methodical and systematic discovery.
b. Qualitative researchers value quantitative natural settings where the researcher can better understand people's life experiences.
c. Researchers express qualitative data in participants' words, images, and sometimes in numbers.
d. The qualitative research process is flexible, emergent, and iterative.
e. Reflexibility-the researcher's critical awareness is a vital process in which anyone questions and observes oneself at the same time one listens to and observes the participant.

Characteristics of Qualitative Methodology

Subjective qualitative analysis is the examination of patterns in data and ideas that help in clarifying the existence of those patterns. The analysis begins before getting into the field. These ideas are tested against observations and these observations modify ideas that are tested again and so on. Ulin et al. (2002) characterize the characteristics of qualitative research as follows:

a. Asks why, how, and under what circumstances things occur.
b. Seeks depth of understanding and views social phenomena holistically.
c. Explores and discovers.
d. Provides insight into the meanings of decisions and actions.
e. Uses interpretive and other other-ended methods.
f. Is iterative rather than fixed?
g. Is it emergent rather than pre-structured?
h. Involves respondents as active participants rather than subjects.
i. Defines the investigator as an instrument in the research process.

After the internalization of these characteristics, the data collection process and the design of the research or field instruments become simple and efficient.

Methods of Collecting Qualitative Data

A method is a system or way of doing something, a particular procedure for accomplishing or approaching something. It is a systematic or established process of doing something. A method or strategy is a precise and systematic approach to data collection, and technique implies the craftsmanship of inquiring, listening, and interpreting. Usually, social science researchers use three primary methodology types: qualitative, quantitative, and mixed methods. Of these broad categories, more specific methods include an assortment of options, such as case studies, self-reporting, surveys, etc. The methods of collecting qualitative data can be grouped into three interrelated categories. The methods, the role or the part of the analyst (researcher), and the basic techniques used in collecting data can be categorized as:

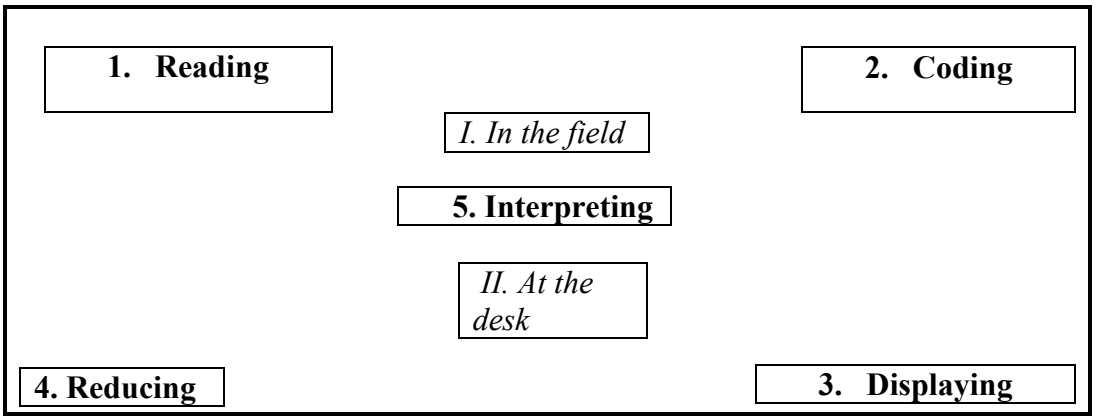
Methods	**Researcher's Role**	**Data Collection Techniques**
Observation	Observer	Participant observation
In-depth interview	Interviewer	In-depth (key informant interview
Group discussion	group moderator	Focus group discussion

The chief dictum of qualitative methodology is to get people to open up and let them express themselves on their terms and at their own pace in their way.

Analyzing Qualitative Data

Qualitative Data Analysis (QDA) portrays a range of processes and procedures whereby we move from the qualitative data that have been collected into some form of understanding, explanation, or interpretation of the people and the situations, circumstances, and context we are investigating. Based on interpretative philosophy, QDA examines the meaningful and symbolic content of the qualitative data.Given this subjectivity, it is difficult to analyze information obtained from qualitative methods. It becomes a must that qualitative data investigations must give specific attention to the setting (context) and meanings. The sequence of interrelated steps in qualitative data analysis has been presented in the figure (Miles and Huberman, 1994).

Figure 4.1: **Sequence of Interrelated Steps in Qualitative Data Analysis**



The analysis process follows –first reading, coding, displaying, reducing, and interpreting. These five steps are interrelated and each step builds upon the previous ones.

4.3 Types and Indicators of Variables

Analysts somewhat unreservedly call the constructs or properties they consider 'variables'. Examples of important variables in sociology and anthropology are social class, sex, income, education, word-related portability, ethnicity, societies, culture, anxiety, religious affiliation, political inclination, ego quality, conformity, social issues, task orientation, accomplishment, gender issues, insights, intelligence, development, participation, etc. As with any measurable quality of objects, things, or beings, variables are varied. Kerlinger (1986) asserts that a variable is a property that takes on different values. Putting it redundantly, a variable is something that varies.Young (1982) states that a variable is any quantity of characteristics that may possess different numerical values or categories. Singh (2017)has defined a variable as the name implies, as something that varies. It may be defined as those attributes of objects, events, things, and being which can be measured. According to Jary and Jary (2005) variable is a characteristic, which may vary along a continuum, continuous variable e.g. height, be more discrete e.g. Family size of bipolar e.g. sex.

In common, a variable may be a symbol to which numerical values are allotted. Variables are regularly symbolized by letters of the alphabet such as X, Y, or Z. These letters of the alphabet at that point symbolize a specific value for a specific variable. For example, *X* is a variable: it is a symbol to which we assign

numerical values. The variable *X* may take on any justifiable set of values—for example, scores on an intelligence test or an attitude scale. In the case of intelligence, we assign to *X* a set of numerical values yielded by the procedure designated in a specific test of intelligence. This set of values, intelligence quotient, often called (IQs), ranges from low to high, from, say,50 to 150. A variable, *X*, however, may have only two values. If sex is the construct under the study, then *X* can be assigned 1 and 0, 1 standing for one of the sexes and 0 standing for the other. It is still a variable. Other examples of two-valued variables are *alive-dead, citizen-non-citizen, teacher-non-teacher, middle class-working class, traditional-modern,* etc. Some of the variables used in behavioral research are true dichotomies—that is, they are characterized by the presence or absence of a property: male-female, employed-unemployed, alive-dead, etc. Briefly, we can say that variables are characteristics of persons, things, groups, programmers, etc. A variable is thus a symbol to which numerical values are assigned. It is anything that can take on differing or varying values.

Example

The ***age***of students differs in higher secondary school. Therefore, the age of students takes on different values ranging from 6 to over 18 and hence a variable.

Example

Sex is a variable. The sex of employees differs in an office. The two possible values of sex are either male or female.

Types of Variables

Variables can be classified in several ways. However, the types of variables that are more important can be presented as follows:

- *The Independent Variable*
- *The Dependent Variable*
- *The Intervening Variable*

I. Independent Variable

The first and most valuable way to classify factors is as independent and dependent. This categorization is exceedingly useful since of its common applicability, simplicity, and extraordinary importance in conceptualizing and designing research and in communicating the research results or comes almost. A variable is called an independent variable if it is not influenced by any other

variable under study. An independent variable is a *cause*.It, however, influences the dependent variable. Any change in the independent variable, either positive or negative, leads to changes (increase or decrease) in the dependent variable. In other words, any change in the dependent variable is due to a change in the independent variable. The independent variables are those which are used as the basis of prediction and the dependent variable is the variable that is being predicted. According to Kerlinger (1986), *an independent variable is the presumed (supposed) cause of the dependent variable, the presumed effect. The independent variable is the antecedent; the dependent is the consequent. When we say: If A, then B, we have the conditional conjunction of an independent variable (A) and a dependent variable (B).*

Speaking forthrightly, the terms independent and dependent variable comes from mathematics, where ***X*** is the independent and ***Y***is the dependent variable. This is probably the best way to think of independent and dependent variables, because there is no need to use the touchy word "cause" and relate words, and because such use of symbols applies to most research situations. Indeed, it can even be said that in scientific research the relations between X's and Y's are constantly pursued. And there is no theoretical restriction on the numbers of X's and Y's.

In experiments, the independent variable is the variable controlled and manipulated by the experimenter. When, for example, an educational investigator studies the effect of different teaching methods, he may manipulate the method, the independent variable, by using different methods. In non-experimental research, where there is no possibility of manipulation, the independent variable is the variable that has presumably been manipulated before he got it. He may, for instance, study the presumed effects on the achievement of a readymade teaching situation in which different methods have been already used. Methods, here, are also the independent variable. Or he may study the effect on school achievement of parental attitudes. Here parental attitudes are the independent variable (Kerlinger, 1986).An example of independent variables as presented by Pant (2009) in his book *Social Science Research and Thesis Writing*will be pertinent to be presented here….

The annual saving of an employee is a function of his yearly earnings. The higher the profit or earnings, the greater the sparing or saving. In this case, the annual earnings of the employee influence his saving capacity, and subsequently, annual earningsare the independent variable.

II. Dependent Variable

It is something that depends on other factors. A variable is called a dependent variable if its values depend upon the other variable (s). The researcher's purpose is to study, analyze and predict the variability in the dependent variable. The dependent variable is the *effect*. Its value depends on changes in the independent variable. On the other hand, an independent variable is a *cause*. Its value is independent of other variables in a study. For example, in a research study, the researcher plans to test whether changes in room temperature have an impact on math test scores. The independent variable is the temperature of the room. The researcher changes the room temperature by making it cooler for half the participants, and warmer for the other half. The dependent variable is math test scores. The researcher measures the math skills of all participants by employing a standardized test and checking whether they vary based on room temperature.

Let's take another example, a test score might be a dependent variable because it may alter depending on how much you studied, how much sleep you got the night before you took the test, or how hungry you were once you took it. The researcher is interested in measuring the variability in the dependent variable—e.g. what would be the result in the dependent variable if certain changes appear in other related variables. The dependable variable, of course, is the variable predicted ***to***, whereas the independent variable is predicted ***from***. The dependent variable, *Y*, is the presumed effect, which varies concomitantly with changes or variations in the independent variable *X*. It is the variable that is not manipulated. Rather, it is observed for variation as a presumed result of variation in the independent variable. In predicting from X to *Y*, we can take any value of X we wish, whereas the value of Y we predict is 'dependent' on the value of X we have selected. The dependent variable is ordinarily the condition we are trying to explain. The most common dependent variable in education, for example, is achievement or 'learning'.The illustration of dependent variables displayed by Pant (2009) is as follows:

The production manager is concerned about employees' productivity. Employee productivity can vary; it can be low, medium, or high. So it is a variable. Since productivity is the main factor of interest to the production manager, it is the dependent variable.

III. The Intervening Variable

If a variable influences the nature and degree of relationship between the independent and dependent factors, such variables are called intervening or mediating variables. By the by, it is to be kept in mind how one changes

concerning the other. However, there are numerous social problems where one major variable of interest may depend upon the independent variables, provided the third variable (intervening variable) modifies the originally excepted relationship between the independent and dependent variables. Pant (2009) presents the example of intervening variables…….

Suppose, a manager's interest is to study and explain the relationship between training and productivity. The more training is given to the workers, the higher the productivity. Thus productivity is the dependent variable and training is the dependent variable. But, this positive relationship holds only with young workers. The training given to workers who are over 50 years of age may not lead to an increase in productivity. Thus, age is the intervening variable.

In the path of the process of analysis of the variables, it must be noted that manipulated variables will be called *active variables*; measured variables will be called *attribute variables.* Any variable that is manipulated, then, is *active*. Any variable that cannot be manipulated is an attribute variable. When one uses different methods of teaching, rewarding the children of one group and punishing those of another, creating anxiety through worrying instructions, one is actively manipulating the variables methods, reinforcement, and anxiety. However, it is to be noted that all variables that are human characteristics – aptitude, intelligence, sex, socio-economic status, field dependence, education, need for achievement, and attitudes are, for example—*attribute variables*. The word attribute moreover, is accurate enough when used with inanimate objects or referents. Organizations, institutions, populations, homes, and geographical areas have attributes.

A continuous variable is capable of taking on an ordered set of values within a certain range. This delineation means, first, that the values of a continuous variable reflect at least a rank order, a larger value of the variable meaning more of the property in question than a smaller value. Second, continuous measures in actual use are contained in a range, and each individual obtains a score within the range. A scale measure, for example, to measure dogmatism (rigidity) may have the range 1 through 7. A continuous variable belongs to a kind of measurement called nominal. In nominal measurement, there are two or more subsets of the set of objects being measured. Individuals are characterized by their possession of the characteristic that defines any subset. To categorize means to assign an object to a subclass or subset of a class or set based on the objects having or not having the characteristics that define the subset. The examples are dichotomous categorical variables like White-Black, Republican-Democrat, etc. Here and now it is to be remembered that categorical variables – and nominal measurement—have simple requirements: all the members of a subset are considered the same and all are assigned the same name (nominal)

and the same numeral. If the variable is a religious preference, for example, all, Protestants are the same, all Catholics are the same, and all *others* are the same. If an individual is a catholic –operationally defined in a suitable way—he is assigned to the category catholic and also assigned an "l" in that category. In brief, he is counted as a Catholic. Categorical variables are 'democratic': there is no rank order or greater–than–and–less–than among the categories, and all members of a category have the same value: 1.

4.4Measurement and Levels of Measurement

Talking in an earnest way the level of measurement refers to the relationship among the values that are designated or assigned to the attributes for a variable. What does that mean? For example, let's start in on with the idea of the *variable*, e.g. *party affiliation in the United States of America.* That variable has some attributes or qualities.

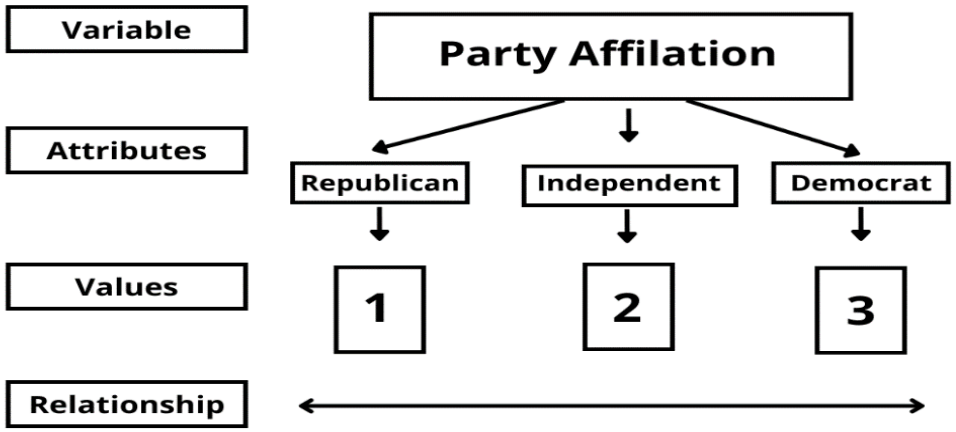


Figure 4.2: **Attributes or Qualities of Variables**

Let's suppose that in the election context in the United States of America the only relevant attributes are "republican", "democrat", and "independent". For purposes of analyzing the results of this variable, it is necessary to randomly assign the values 1, 2, and 3 to the three attributes. The *level of measurement* describes the relationship among these three values. In this case, we simply are using the numbers as shorter placeholders for the lengthier text terms. We don't assume that higher values mean "more" of something and lower numbers signify "less". We don't assume the value of 2 means that democrats are twice something that republicans are. We don't assume that republicans are in the first place or have the highest priority just because they have the value of 1. In this case, we only use the values as a shorter name for the attribute. Here, we would describe the level of measurement as "nominal".

Why are Levels of Measurement Significant?

The level of measurement is importantsinceit facilitates the researcher to decide how to interpret the data from that variable. When the researcher knows that a measure is nominal, then he knows that the numerical values are just the shortcodes for the longer names. Second, knowing the level of measurement helps the researcher to decide what statistical analysis is appropriate for the values that were assigned. If a measure is nominal, then the researcher knows that he would never average the data values or do a t-test on the data.

Levels of Measurement

Measurement is a fundamental task and there are typically four levels of measurement that are defined:

- Nominal Measurement
- Ordinal Measurement
- Interval Measurement
- Ratio Measurement

Nominal Measurement

Nominal measurement is the numerical value that just *names* the attribute exclusively. No ordering of the cases is implied. A nominal scale permits the researcher to assign subjects to certain categories or groups. This is the simplest and lowest form of data and it gives very basic information. This is usually used to obtain personal data, where the grouping of individuals or objects is required. The examples of ordinal scale are as follows:

Gender: Male, Female
Occupation:Lawyer, Lecturer, Doctor, Businessman, Civil servant, Manager
Religion:Hindu, Buddhist, Muslim, Christian
Nationality: Indian, Pakistani, Nepali, American, Japanese
Department: Anthropology, Sociology, English, History, Economics, Political Science

Here it has to be noted that all categories are mutually exclusive. Every respondent has to fit into one of these categories. Hence, one cannot rank these and say that a male is a higher value than a female, or that a lawyer is higher than a lecturer.

Ordinal Measurement

In ordinal measurement, the attributes can be rank-ordered. A scale is ordinal when objects can be assigned order on some characteristics but they cannot be assigned values that represent the degree of difference on that characteristic. This scale is used to rate the preferences of the respondents, ranked according to value but cannot be given a particular numerical value that is descriptive of the data. **Ordinal variables are the** variables with an ***ordered series***, for example, related to like or dislike, "*greatly dislike, moderately dislike, indifferent, moderately like, greatly like*". For example, one can rank drinks (Coca-Cola, tea, coffee, soda water, mineral water) in order of preference from most preferred to least preferred.

Numbers assigned to ordinal variables indicate rankorder only…. the*distance* between the numbers has no meaning. A separate ordinal variable is a nominal variable, but its different states are ordered in a significant/meaningful sequence. Ordinal data has an order, but the intervals between scale points may be uneven. For the reason of lack of equal distances, arithmetic operations are impossible, but logical operations can be performed on the ordinal data.
It is imperative to be acquainted that the items on an ordinal scale are set into some kind of *order* by their position on the scale. This may indicate such sequential or temporal position, superiority, etc. The order of items is often defined by assigning numbers to them to show their relative position.

Interval Measurement

On the other hand,in **interval measurement**, the distance among attributes *does* have meaning. For example, when we measure temperature (in Fahrenheit), the distance from 30-40 is the same as the distance from 70-80. The interval between values is interpretable. Because of this, it makes sense to compute an average of an interval variable, whereas it doesn't make sense to do so for ordinal scales. However, it is necessary to note that interval measurement ratios don't make any sense - 80 degrees is not twice as hot as 40 degrees (although the attribute value is twice as large).

Ratio Measurement

Lastly, in ratiomeasurement, there is an absolute zero that is meaningful. This means that you can construct a meaningful fraction (or ratio) with a ratio variable. Weight is a ratio variable. Ratio variables are very fundamental and are very similar to interval variables; in addition to all the properties of interval variables, they feature an identifiable absolute zero point, thus, they allow for statements such as x is two times more than y. Distinctive examples of ratio

scales are measures of time or space. For example, as the Kelvin temperature scale is a ratio scale, not only can we say that a temperature of 200 degrees is higher than one of 100 degrees; we can correctly state that it is twice as high. Interval scales do not have the ratio property. Most statistical data analysis procedures do not distinguish between the interval and ratio properties of the measurement scales.

In applied social research most "count" variables are ratios, for example, the number of clients in a law firm in the previous six months. Why? Since you can have zero clients it is meaningful to say that "...we had twice as many clients in the past six months as we did in the previous six months."It is important to recognize that there is a hierarchy implied in the level of measurement idea. At lower levels of measurement, assumptions tend to be less restrictive and data analyses tend to be less sensitive. At each level up the hierarchy, the current level includes all of the qualities of the one below it and adds something new. In general, it is desirable to have a higher level of measurement (e.g., interval or ratio) rather than a lower one (nominal or ordinal).

4.5Test and Improvement of Reliability

Reliability is the consistency of a measure. It *tells us* the degree or extent to which results can be reproduced when the research is repeated under the same condition. It *can be assessed* by checking the consistency of results over time, across different observers, and across parts of the test itself. The crucial concern is *how they relate.* A reliable measurement isn't continuously valid and the results could be reproducible, but they are not essentially correct.A reliable measurement gives consistent results on independent testing. If the findings of one piece of work can be replicated by another research group, or by the same research group on a later occasion, then it produces the same result, then it is deemed to be *reliable*. The reliability is roughly the same as consistency and repeatabilit*y.*But no researcher can know in anticipation whether a particular measuring instrument is valid and consequently reliable or not.Total reliability is difficult to achieve in social research, although quantitative methods are most likely to aspire to it. It is almost impossible in any qualitative research given that this research may typically take the form of a single individual observing a group over several years, though this kind of research may in any case wish to emphasize the validity of its data over its objectivity.

Determining the Reliability

One method can find out whether the results remain constant even if the measures are consistent and the individuals and the situations remain the same when tests are carried out under independent situations. To eliminate the

chances of errors, it is always better, if there are repeated observations and measurements of the same individuals or situations. However, as the characteristics of the study will go on changing hence repeated observations cannot be carried out on human beings. Hence, it is advantageous that in such a situation the experiments may be carried out on the sample of the universe rather than on the universe as a whole.Another method of estimating reliability can be the stability of an individual's position from the administration of one measure to the other. Stability can be found based onthe consistency of measures on repeated applications. Moreover, another way of testing reliability is that the number of individuals who are to be measured ought to be increased so that it is conceivable to realize the same results as would have been obtained had the number of measurements on some individuals been carried out. In general, the reliability of the measurement may be obtained by one of three methods. The methods are:

a. Test-Retest or the repetition of the same measure;
b. Alternative measurement forms or giving another form of the measure deemed to be equivalent, and
c. Splithalf or divide a measurement instrument into at least two equivalent parts.

Test-Retest Reliability

Test-retest reliability estimates are obtained by repeating the measurements utilizing the same instruments under as nearly equal conditions as possible. The results of the two administrations are then compared and the degree of correspondence is determined. The greater the difference, the lower the reliability.

Alternative –Form Reliability

Alternative–form reliability estimates are obtained by applying two 'equivalent' forms of the measuring instrument to the same subjects. As in test-retest reliability, the results of the two instruments are compared on item –an by-item basis, and the degree of similarity is determined. The basic logic is the same as in the test-retested approach.

Split-Half Reliability

It is the simplest type of internal comparison. This approach to measuring the relativity of a measurement instrument is a modification of the alternative form approach. It is obtained by calculating the correlations between two halves of instruments. The usual approach to split-half reliability involves dividing the total number of items into two groups (odd-numbered items and even-numbered items) and computing a measure of similarity (a correlation coefficient). The correlation between scores on the odd and the even sets is a *split-half* or odd-

even correlation, from which a reliability (consistency) coefficient for the entire test may be estimated by the Spearman-Brown formula (1910). A better approach to internal comparison is known as coefficient alpha.

4.6 Validity: Types of Validation

Validity is legitimacy which is the quality of being true or correct. When a statement is true and has a lot of evidence backing it up, this is an example of a situation where the evidence supports the validity of the statement. In research, validity is imperative since it decides what survey questions to use, and helps ensure that analysts are using questions that truly measure the issues of significance. The validity of a survey is considered to be the degree to which it measures what it claims to measure. Validity concerns whether a research method gives a true picture of what it claims to have recorded, and shows social realities as they are. No matter how reliable data may be, it will always be limited in its validity if the researcher cannot show that it gives a true account of what is being studied. Take an example, suicide statistics may enable comparative research to be undertaken across the States in India and several correlations made, but until the problem of knowing the dead person's intention is solved, there will always be questions concerning their validity.

Validity and Reliability are two dissimilar concepts. Reliability indicates consistency and a test is valid if it measures what it's supposed to valid tests are also reliable.The real difference between reliability and validity is mostly a matter of definition. Reliability estimates the consistency of measurement, or more simply the degree to which an instrument measures the same way each time it is used under the same conditions with the same subjects. The validity, on the other hand, involves the degree to which you are measuring, what you are supposed to, more simply, and the accuracy of your measurement. Validity is more important than reliability because if an instrument does not accurately measure what it is supposed to, there is no reason to use it even if it measures consistently (reliably).

The issue of validity is problematic for quantitative methods, where the general aim is to gather large amounts of numeric data quickly, without attempting to examine a subject in the detail demanded by qualitative methods.Validity is the strength of our conclusions, inferences, or propositions. More formally, Cook and Campbell (1979) define it as the best available approximation to the truth or falsity of a given inference, proposition, or conclusion. Validity is an element of social science research that addresses the issue of whether the researcher is measuring what he/she says he/she is. As an example, let us pretend we want to measure attitude.

Types of Validity

Accuracy or validity is a measure of the systematic error but in case an experiment is precise or valid, at that point the systematic error is very small. Accuracy is a measure of how well an experiment measures what it was trying to measure. In a broad sense, validity is concerned with systematic error. A valid measurement reflects only the characteristics of interest and random error. Pant (2009) asserts that there are three basic types of validity which are *(i) content validity, (ii) construct validity, and (iii) criterion-related validity*. However, there are other types also like conclusion validity, internal validity, external validity, etc. In detail, the types of validityare as follows:

a. Conclusion Validity

Does it askif is there a relationship between the program and the observed outcome? Or, for example, in a development venture is there a connection between the attendance policy and increased participation? Of the four types of validity internal validity, construct validity, and external validity, conclusion validity is undoubtedly the least considered and most misunderstood probably because it was originally labeled *statistical* conclusion validity and we know how even the mere mention of the word *statistics* will fright off most of the human race! In many ways, conclusion validity is the most important of the four validity types because it is relevant whenever we are trying to decide if there is a relationship in our observations (and that's one of the most basic aspects of any analysis).

Conclusion validity is the degree to which conclusions we reach about relationships in our data are reasonable. Conclusion validity is the degree to which the conclusion we reach is credible or believable. Although conclusion validity was originally thought to be a statistical inference issue, it has become more apparent that it is also relevant in qualitative research. It's important to realize that conclusion validity is an issue whenever we conclude there is a relationship, even when the relationship is between some program (or treatment) and some outcome. In other words, conclusion validity also pertains to causal relationships. How do we distinguish it from internal validity which is also involved with causal relationships? Conclusion validity is only concerned with whether there is a relationship. Conclusion validity is essential whether that relationship is a reasonable one or not, given the data.

b. Content Validity

The theory behind content validity, as opposed to face validity, is that experts are aware of nuances or distinctions in the construct that may be rare or

indefinable of which the layperson may not be aware. Many studies proceed following content validity achievement; however, this does not necessarily mean the measures used are entirely valid. Content validity involves assessing the representativeness of the sampling adequacy of the items contained in the meaning of the instrument. It estimates systematic errors. The most common use of content validity is with multi-item measures. In this case, the researcher assesses the representativeness, or sampling adequacy, of the included items in light of the purpose of the measuring instrument. The two most commonly used methods of content validation involve the use of logical and personal judgments of groups of experts in the field. Content is the most common form of validation in applied research.

c. Internal Validity

Internal validity makes the conclusions of a causal relationship credible and trustworthy and without high internal validity, an experiment cannot demonstrate a causal link between two variables. Internal validity asks if there is a relationship between the program and the outcome we saw, is it a causal relationship? For example, in a development venture did the attendance policy cause class participation to increase? or do you want to test the hypothesis that drinking a cup of tea improves memory?

d. Construct Validity

Construct validity is related to knowing more than just how a measuring instrument works. It is involved with the factors that lie behind the measurement scores obtained; with what factors or characteristics (that is constructs) account for, or explain, the variance in measurement scores. This validity is assessed through (i) *convergent validity*, and (ii) *discriminate validity*. ***Convergent validity*** is established when the scores obtained by two different instruments measuring the same concept are highly correlated. ***Discriminate validity*** is established when, based on theory, two variables are predicted to be uncorrelated, and the scores obtained by measuring them are indeed empirically found to be uncorrelated (Sekaran,1992) Several approaches exist for assessing construct validity. The most common approach is the ***multi-trait-multimethod matrix*** approach. Construct validity is the toughest to understand. It looks for whether there is a relationship between how the researcher operationalized his concepts in the study to the actual causal relationship.

e. External Validity

External validity is the degree to which a researcher can generalize the findings of a study to other circumstances or situations, people, settings, and measures

e.g. can you apply the findings of your study to a broader setting (context)? It alludes to the ability to generalize study results in other settings e.g. could we generalize our results to other such situations? As the aim of scientific research is to produce generalizable knowledge about the genuine (real) world, without high external validity, you cannot apply results to other people or the real world. There are two fundamental sorts of external validity: *population validity* and *ecological validity*. Population validity alludes to whether you can sensibly and reasonably generalize the findings from your sample to a larger group of people (the population). Population validity depends on the choice of population and on the degree (extent) to which the study sample mirrors that population. With this type of sampling, the generalizability of results is constrained (limited) to populations that share similar characteristics with the sample. Ecological validity denotes whether you can sensibly and reasonably generalize the findings of a study to other circumstances and settings in the 'real world. Ecological validity analyzes, particularly, whether the study findings can be generalized to real-life settings; hence ecological validity is a subtype of external validity.

f. Face Validity

Face validity requires that the measure appears relevant to the construct to those the researcher wishes to measure. To have a valid measure of a social construct, one should never stop at achieving only face validity, as this is not sufficient. However, one should never miss establishing face validity, because if you do not have it, you cannot achieve the other components of validity.

g. Criterion Validity

Criterion validity is a more rigorous test than face or content validity. Criterion validity means attitude assessment can predict or agree with constructs external to attitude. Criterion-related validity is established when the measure differentiates individuals on a criterion it is expected to predict. The methods of assessing criterion-related validity are (i) Concurrent validity, and (ii) Predictive validity.

- **Concurrent Validity:** Concurrent validity is the degree to which one measure of a variable can be used to evaluate an individual's current score on a different measure of the same, or a closely related, variable. It involves assessing the extent to which the obtained score may be used to estimate an individual's present standing concerning some other variable. For example, in an attitude study research study does the attitude survey give scores that agree with other things that go along with attitude? For example, if someone scores low, indicating that they have a negative attitude, are low attitude scores concurrent with (happen at the same time

as) negative remarks from that person? High blood pressure? If the researcher administers his attitude survey to someone who is cheerful and smiling a lot, but they rate low, negative attitude, his survey may not have concurrent validity.

- **Predictive Validity:** This validity is the extent to which an individual's future level on some variable can be predicted by his performance on a current measurement of the same or a different variable (Tull and Hawkins, 1993). This validity involves assessing the extent to which the obtained score may be used to estimate an individual's future standing concerning the criterion variable. For example, in an attitude study, can researchers' attitude survey predict? For example, if someone scores high, indicating that they have a positive attitude, can high attitude scores also be predictive of a job promotion? If the researcher administers his attitude survey to someone and s/he rates high, indicating a positive attitude, then the next week s/he is fired from his/her job and his/her spouse divorces him/her, the researcher may not have predictive validity.

4.7Relationship: Types of Relationship, Correlation, and Causality

A. What is a Relationship?

A relationship refers to the correspondence between two variables. There are different types of patterns one might find in a relationship. When we talk about relationships in research, we are referring to a connection between two or more factors that we can measure or systematically vary. One of the most important distinctions to make when discussing the relationship between variables is the meaning of causation. Kerlinger (1986) affirms that *a relationship is a set of ordered pairs.*

Types of Relationship

1. Reciprocal Relationship
2. Symmetrical Relationship
3. Asymmetrical Relationship

Degree of Relationship

1. Positive Level of Relationship
2. Negative Level or Relationship
3. Neutral Level of Relationship

A *causal relationship* is when one variable *causes* a change in another variable. These types of relationships are investigated by experimental research to determine if changes in one variable truly cause changes in another variable.

B. Correlation

Correlation depicts the strength and direction of the relationship between two or more variables. The course or direction of a correlation can be either positive or negative. Correlation portrays that between two series or groups of data there exists a causal association. In case it is given that in a large number of examples two variables tend continuously to fluctuate within the same or inverse (opposite) direction, we consider that the fact is established and that a relationship exists.
The relationship is called correlation. If two or more quantities differ in sympathy, so that movement in one tends to be accompanied by corresponding movements in the other, then they are said to be correlated. Hence, acorrelation is the measurement of the association between two variables. These variables already occur in the group or population and are not controlled by the experimenter.

- A *positive correlation* is a direct relationship whereas the amount of one variable increases, the amount of a second variable also increases.
- In *a negative correlation*, as the amount of one variable goes up, the levels of another variable go down.
- In both types of correlation, there is no evidence or proof to show that changes in one variable *cause* changes in the other variable. A correlation simply indicates that there is a relationship between the two variables.

The most important concept to take from this is that **correlation does not equal causation**. Correlation is one of the most common and useful statistics. A correlation is a single number that describes the degree of relationship between two variables.

Illustration of Correlation

Assumethat we want to look at the relationship between two variables, *height* (in inches) and *self-esteem*. Conceivably we have a hypothesis that the height of an individual can affect self-esteem (incidentally, it is not needed to worry about the direction of causality here -- it's not likely that self-esteem causes height!). For instance, we collect information on twenty individuals (all male -- we know that the average height differs for males and females so, to keep this example simple we'll just use males). It is to be noted that the *Height* is measured in

inches. *Self-esteem* is measured based on the average of 10 1-to-5 rating items (where higher scores mean higher self-esteem).

Investigator will right away observe in the bivariate plot that the *relationship* between the variables is a positive one because if he were to fit a single straight line through the dots it would have a positive slope or move up from left to right. The reason that the correlation is nothing more than a quantitative estimate of the relationship, the researcher would look forward to a positive correlation. Now a fundamental question raised at this juncture is what does a *positive relationship* mean in this context? It means that, in general, higher scores on one variable tend to be paired with higher scores on the other and that lower scores on one variable tend to be paired with lower scores on the other. The investigator should verify visually that this is generally true in the plot above.

Calculating the Correlation

As an investigator, we use the symbol **r** to stand for the correlation. Through the magic of mathematics, it turns out that r will always be between -1.0 and +1.0. If the correlation is negative, we have a negative relationship; if it's positive, the relationship is positive. It is not necessary to know how we came up with this formula unless we want to be a statistician. Nevertheless, we probably will need to know how the formula relates to real data -- how we can use the formula to compute the correlation.

Testing the Significance of a Correlation

A hypothesis test of the significance chooses whether a direct or linear relationship in the sample data is strong enough to use the model of the relationship within the population. After calculating or computing a relationship, we can direct and decide the probability that the observed correlation happened by chance. That's, we will conduct a significance test. Most frequently we are interested in determining the probability that the relationship may be a real one and not a chance occurrence. In this case, we are testing the mutually exclusive hypotheses:

Null Hypothesis:	r = 0
Alternative Hypothesis:	r <> 0

The least demanding way to test the hypothesis is to find a statistics book that has a table of critical values of r. Most introductory statistics texts would have a table as shown above. As in all hypotheses testing, we need to first determine the significance level. Here, we will use the common significance level of alpha

= .05. This means that we are conducting a test where the odds that the correlation is a chance occurrence are no more than 5 out of 100. Before we look up the critical value in a table, we also have to compute the degrees of freedom or *df*. The *df* is simply equal to N-2 or, in this example, is 20-2 = 18.

Finally, we have to decide whether we doing a one-tailed or two-tailed test. Since we have no strong prior theory to suggest whether the relationship between height and self-esteem would be positive or negative, we will choose the two-tailed test. With these three pieces of information -- the significance level (alpha = .05)), degrees of freedom (df = 18), and type of test (two-tailed) – we can test the significance of the correlation we found. When we look up this value we find that the critical value is .4438. This means that if the correlation is greater than .4438 or less than -.4438 (remember, this is a two-tailed test) it can be concluded that the odds are less than 5 out of 100 that this is a chance occurrence. Since the correlation of .73 is in reality quite a bit higher, it can be concluded that it is not a chance finding and that the correlation is statistically significant (given the parameters of the test). Hence the null hypothesis can be rejected and acknowledge the alternative. In nutshell, the correlation can be a statistical technique or measurable strategy, or procedure that can appear whether and how strongly pairs of variables are related. For outline, height (tallness) and weight are related; taller people tend to be heavier than shorter people. The relationship isn't idealizing or perfect.

5

QUANTITATIVE TOOLS AND TECHNIQUES IN SOCIAL RESEARCH

Quantitative research centers on gathering numerical information and generalizing it over groups of individuals or clarifying a specific phenomenon. Quantitative strategies emphasize objective estimations and the measurable, scientific, or numerical investigation of information collected through polls, surveys, and surveys, or by controlling pre-existing measurable information utilizing computational methods. The objective of conducting a quantitative research study is to decide the relationship between one thing i.e. an independent variable and another (a dependent or outcome variable) inside a population. Quantitative research designs are either descriptive (subjects, as a rule, measured once) or experimental (subjects measured before and after treatment). A descriptive study sets up only associations between variables; an experimental study builds up causality. Quantitative study bargains in numbers, rationale, and an objective position. It centers on numeric and perpetual information and point-by-point, convergent reasoning instead of dissimilar or divergent reasoning i.e., the generation of an assortment of ideas about a research issue in an unconstrained, free-flowing way.

Quantitative research studies are such that the data, as a rule, is assembled utilizing structured research instruments and the results are based on larger sample sizes that are representative of the population. A research study can ordinarily be replicated or repeated, given its high reliability, and the researcher features a clearly defined research question to which objective answers are sought. In quantitative research, all viewpoints of the study are carefully designed before data is collected and the project can be used to generalize concepts more broadly, predict future results, or examine causal connections. The overarching point of a quantitative research study is to classify features, count them, and develop factual statistical models in an endeavor to clarify what is observed. The researcher employs instruments, such as a survey questionnaire or computer program to gather numerical information and analyze the collected information with factual statistical treatment.

Sampling could be a crucial part very essential to be embraced for a quantitative research study. Quantitative researchers are frequently curious about being able to form generalizations about groups larger than their study samples. Whereas there are certain instances when quantitative analysts depend on nonprobability

samples (e.g., when doing exploratory or evaluation research), quantitative analysts tend to depend on probability sampling techniques. The objectives and procedures related to probability samples vary from those of nonprobability samples. Researchers commonly examine traits or characteristics (parameters) of populations in their studies. A population may be a group of individual units with some commonality. For example, a researcher may want to study the characteristics of female smokers in India. This would be the population being examined within the study, but it would be inconceivable to gather data from all the female smokers in India. Hence, the researcher would select individuals from whom to collect the information. This is often called sampling. The group from which the information is drawn could be a representative sample of the population the results of the study can be generalized to the population as an entire. The sample will be representative of the population if the researcher uses an arbitrary or random selection procedure to select participants. The groups of units or individuals who have a legitimate chance of being chosen are now and then referred to as the sampling outline or frame. If a researcher examined the developmental milestones of preschool children and focused on licensed preschools to gather the data, the sampling outline would be all preschool-aged children in those preschools. Students in those preschools could at that point be chosen at random through a systematic method to participate in the study. However, this can lead to a discussion of inclinations or biases in research. For illustration, low-income children may be less likely to be enlisted in preschool and so, maybe prohibited from the study. Additional care has got to be taken to control inclinations and biases when determining sampling techniques.

5.1 The Smaller Representation of Large Whole: Methods of Sampling

An investigationor research is a systematic process to look through around or examine comprehensively in a meticulous exploration, reflective inquiry or examination principal search or experimentation aimed at the detection and understanding of information, reconsideration of accepted theories or laws in the light of innovative facts or realistic appliance of such new or revised theories or laws. It can in addition be the assemblage of facts about a particular topic or problem. Likewise, Sampling is the method to decide on units (e.g., people, organizations) from a population so that by learning the sample it may be reasonably easy to generalize our results back to the population from which they were selected. Sampling is a statistical practice concerned with the selection of an unbiased or random subset of individual observations within a population of individuals proposed to yield some knowledge about the population of concern, principally to make predictions based on statistical inference.

With statistics designed to generate quantitative data, for reasons of time and resources, it is unlikely that the entire field can be surveyed. Generalizations will therefore have to be made from a smaller group, or sample. The overall group from whom the sample is drawn (which may be as large as the population of a nation) is called the *sampling frame*. Considerations concerning who is to be studied are less crucial to qualitative research, but the final group selected will nevertheless need to be representative of the wider phenomenon under consideration. Before starting a discussion on sampling in research, it is necessary to comprehend general issues on sampling, the purpose of sampling in research, the dangers of sampling and how to minimize them, types of sampling, and guides for deciding the sample size.

Sampling, in point, is asignificant aspect of data collection. Researchers rarely survey the entire population for two reasons: the cost is too high, and the population is dynamic in that the individuals making up the population may change over time. The three main advantages of sampling are that the cost is lower, data collection is faster, and since the data set is smaller it is possible to ensure homogeneity and improve the accuracy and quality of the data. In designing a sample, the researcher must consider three things: (i) the sampling frame (ii) the selection of sampling items, and (iii) the sample size.

The sampling frame is the list of items in the universe from which the sampling is to be drawn. After determining the sampling frame, the researcher must decide how the sample will be selected. This choice involves the selection of probability or non-probability techniques. Finally, the size of the sample must be determined. In survey sampling, survey weights can be applied to the data to adjust for the sample design. Results from probability theory and statistical theory are employed to guide practice. In business and medical research, sampling is widely used for gathering information about a population. Successful statistical practice is based on focused problem definition. In sampling, this includes defining the population from which the sample is drawn.

A **population** can be distinct as incorporating all people or items with the characteristic one wish to understand. The reason there is very rarely enough time or money to gather information from everyone or everything in a population, the goal becomes finding a representative sample (or subset) of that population. Sometimes that which defines a population is obvious. For example, a manufacturer needs to decide whether a batch of material from production is of high enough quality to be released to the customer or should be sentenced for scrap or rework due to poor quality. In this case, the batch is the population.

Census is the collection of data from an entire populace instead of just a sample. It is to be kept within the head that a Census may be a handle for systematically

getting and recording information approximately the individuals of a given population. It is the routinely occurring and official count of a specific populace. The census can be differentiated with sampling in which data is obtained only from a subset of a populace, now and then as an Intercensal estimate. Census data is commonly utilized for research, commerce promotion, and planning, as well as a baseline for sampling surveys.

Defining a Sample

Sampling is the act, process, or technique of selecting a suitable sample or a representative part of a population to determinethe parameters or characteristics of the whole population. It is the smaller representation of the larger population of the field. According to Webster (1985), a sample is a finite part of a statistical population whose properties are studied to gain information about the whole.Conferring to Selltiz et al. (1964) sample is a portion, selected from the population or universe. The terms 'population' and 'universe' have been used here in a specific sense but the population is not necessarily synonymous with a population in the manner it is used in sampling statistics and is constituted of all the individuals, things, events, documents or observation (on a single or many individuals, etc.). The sample is only a part of the population. Thus, it is a vital representation. Young (1982) says that astatistical sample is a miniature picture or cross-section of the entire group or aggregate from which the sample is taken.

Providing a brief definition of sampling, Goode, and Hatt (1952)statedthat a sample as the same implies is the smaller representation of a large whole. According to Bhandarkar et al. (2010, sampling is taking of any portion of a population of the universe as representative of that population or universe. The sample is taken as a collective observation for which one has data with which he/she is going to work. Almost any set of observations for which one had data constitutes a sample.When dealing with people, it can be defined as a set of respondents (people) selected from a larger population for a survey. In research, there exist the dangers of sampling and how to minimize them, types of sampling, and guides for deciding the sample size. A population is a group of individuals' persons, objects, or items from which samples are taken for measurement for example a population of people.

Purpose of Sampling

A smaller representation of a larger field is sampling. But it is to be remembered that to conclude populations from samples, researchers should use inferential statistics which enables them to determine a population's characteristics by straightforwardly observing only a portion (or sample) of the population. Researchers obtain a sample rather than a complete enumeration (a census) of

the population for many reasons. It is cheaper to observe a part rather than the whole, but researchers should prepare themselves to cope with the dangers of using samples. It is fundamental to scrutinize various kinds of sampling procedures. Some are better than others but some may yield samples that are inaccurate and unreliable. Researchers will learn how to minimize these dangers, however, some potential error is the price researchers must pay for the convenience and savings (in the form of time, money, effort, and resources. The vital point is that there would be no requirement for statistical theory if a census rather than a sample was used to obtain information about populations. Nevertheless, a census may not be practical and is seldom economical. At present these are major reasons for sampling instead of doing a census.

- Cheap (Economy)
- Timeliness (The time factor)
- The large size of many populations (the very large populations)
- Inaccessibility of some of the population
- Accuracy
- Simplicity

Economy
It is the most vital factor steering the whole research study. Without money, no research can be imagined. The economic benefit of using a sample in research is obviously, is that taking a sample requires fewer resources than a census. Rarely does a circumstance require a census of the population, and even more rarely does one justify the expense.

The time factor
A sample may provide a researcher with needed information quickly. The researcher is required to conduct quick tests to help save the situation compared to a census which is time-consuming.

The very large populations
Countless populations about which conclusions must be made are quite large. For example, the big size of the population makes it physically impossible to conduct a census. In such a case, selecting a representative sample may be the only way to get the information required.

Inaccessibility of some of the population or the partly accessible populations
Some populations are so difficult to get access to. It means that only a sample can be used or partly accessible populations which may create problems. The inaccessibility may be economic or time-related. Like a particular study population may be so costly to reach that the whole research may be hampered.

In other cases, a population of some events may be taking too long to occur that only sample information can be relied on.

Accuracy and sampling
A sample may be more accurate than a census. An untidily conducted census can provide less reliable information than a carefully obtained sample.

Simplicity
A sample is more simple and more clear-cut than a census. That's why it is handier and more effective in dealing with information.

Bias and Error in Sampling

It is to be kept in head that a sample is likely to mirror the population from which it comes; nonetheless, there is no guarantee that any sample will be specifically representative of the population from which it comes. The chance may dictate that a disproportionate number of untypical observations will be made like for the case of testing the sample which may consist of more or fewer defections than the real population proportion of faulty cases. So, in the application, it is rarely known when a sample is unrepresentative and should be rejected.

Sampling error

The vital question is what can make a sample unrepresentative of its population? One of the most recurrent causes is *sampling error*. Sampling error comprises the differences between the sample and the population that are due solely to the particular units that happen to have been selected. For example, suppose that a sample of 100 Nepalese women are measured and are all found to be taller than five feet. It is very clear even without any statistical proof that this would be a highly unrepresentative sample leading to invalid conclusions. This is a very unlikely occurrence because naturally such rare cases are widely distributed among the population. But it can occur. Luckily, this is a very obvious error and can be detected very easily. Specified the scenario, the extremely dangerous error is the less understandable sampling error against which nature offers very little protection. An illustration would be like a sample in which the average height is overstated by only one inch or two rather than one more obvious foot. It is the un-obvious error that is of much concern. It is to note that there are two basic causes for sampling error……
One is chance: That is the error that occurs just because of bad luck. This may result in untypical choices. Unusual units in a population do exist and there is always a possibility that an abnormally large number of them will be chosen.

The second cause of sampling is *sampling bias*. Sampling bias is an inclination to favor the selection of units that have particular characteristics. Sampling bias is usually the result of a poor sampling plan. The most notable is the bias of non-response when for some reason some units have no chance of appearing in the sample.

Non-sampling error (measurement error)

Another main cause of unrepresentative samples is non-sampling error. This type of error can occur whether a census or a sample is being used. Like sampling error, non-sampling error may either be produced by participants in the statistical study or be an innocent by-product of the sampling plans and procedures. A non-sampling error is an error that results solely from how the observations are made. The simplest example of non-sampling error is inaccurate measurements due to malfunctioning instruments or poor procedures. For example, consider the observation of human weights. If persons are asked to state their weights themselves, no two answers will be of equal reliability. Partial or say biased observations due to mistaken measurement can be a blunder, ignorance, or an act of innocence but are very disturbing. There is a story of a French astronomer who once proposed a new theory based on spectroscopic measurements of light emitted by a particular star. When his colleagues discovered that the measuring instrument had been contaminated by cigarette smoke, they rejected his findings. Likewise, in the surveys of personal characteristics, unintentional errors may result from:

a. How or the manner response is elicited.
b. The social desirability of the persons surveyed.
c. The purpose of the study.
d. The personal biases of the interviewer or survey writer.

The interviewers' effect

Society is diverse and likewise, personalities differ, no two interviewers are alike and the same person may provide different answers to different interviewers. How a question is formulated can also result in inaccurate responses. Individuals tend to provide false answers to particular questions. For example, if an interviewer asks a person their age in years, it is easier for the individual just to lie to you by understating their age by one or more years or overstating the age by a few months or years. In such a situation if the interviewer asks which year they were born since it will require a bit of quick arithmetic to give a false date and a date of birth will be more accurate.

The respondent effect

There can be situations when respondents might give wrong answers to impress the interviewer. This type of error is the most difficult to prevent because it results from outright deceit on the part of the respondent. For instance, in my research study in Rupa Village in Western Nepal in 2020, I asked farmers how much paddy they harvested last year. In most cases, the men tended to lie by saying a figure which is the recommended expected yield which is 25 bags per acre. The responses from men looked so uniform that I became doubtful. I compared the responses of the wives of these men and their responses were all different. To decide which one was right, whenever possible I could in a tactful way verify with an older son or daughter. It is important to acknowledge that certain psychological factors induce incorrect responses and great care must be taken to design a study that minimizes their effect.

Knowing the study purpose

It happens that knowing why a study is being conducted may create incorrect responses. For example: *What is your income*? The people may not give the real answer and may confirm less income than reality so that they may get compassion and economic assistance. If a government agency is inquiring, a different figure may be provided. One way to guard against such bias is to hide the study`s goals; another solution is to make the questions very specific, allowing no room for personal interpretation. For example, "*Where are you employed?"* could be followed by *"What is your salary*?" and "*Do you have any extra jobs*?" A sequence of such questions may produce more correct information.

Persuading or the Induced bias

As a final point, it should be noted that the personal prejudices of either the researcher of the study or the data collector may be likely to induce (persuade) bias. In designing a questionnaire, questions may be slanted or biased in such a way that a particular response will be obtained even though it is inaccurate. As a prevention to protect against induced bias, the suggestion and assistance of a person being trained in statistics should be taken in the design process, and somebody in addition, conscious of search risk should serve in an auditing capacity.

Selecting the Sample

There are diverse factors, issues, and parameters related to the choosing of a sample just like the population parameters we need to measure, the significance of data implanted with the cost of sampling, what is already known, and the practicality or challenges in collecting data, and how exact the ultimate estimates will be. The desirability of a sampling strategy depends on both its vulnerability to error and its costs. In any case, economy and reliability are

competing for closes, since, reducing error regularly requires an expanded expenditure of resources. Of the two sorts of statistical errors, only sampling error can be controlled by working out care in deciding the method for choosing the sample. It is to be recalled that sampling error may be due to either bias or chance. In sampling, the chance component (now and then called random error) exists no matter how carefully the selection procedures are actualized, and the straightforward way to minimize chance sampling errors is to choose a sufficiently large sample. Sampling bias on the other hand may be minimized by the rationale and wise choice of a testing strategy.

Determining Sample Size

Sample size assurance is often an important step and choice that educational and organizational analysts are confronting. The quality and accuracy of the research are influenced by inadequate, excessive, or inappropriate sample sizes. Selecting the sample size for a study requires a compromise between adjusting the need for statistical power, economy, and suitabilityor timeliness. There's an enticement for the analysts to take some shortcuts. The table underneath recommends an approximate sample size (+/- 5%).

Table 5.1: **Table for Determining the Sample Size**

Sample size

Population Size	**Sample Size (+/- 5%)**	**Population Size**	**Sample Size (+/- 5%)**
10	10	275	163
15	14	300	172
20	19	325	180
30	28	350	187
40	36	375	194
50	44	400	201
65	56	450	212
75	63	500	222
90	73	1000	286
100	81	2000	333
125	96	3000	353
150	110	4000	364
175	122	5000	370
200	134	6000	375
225	144	8000	381
250	154	10000	385
275	163	100000	398

Source: Krejcie and Morgan, 1970.

The sampling technique here is the Krejcie Morgan sampling technique, which helps effectively determine the number of samples needed to represent a population. This table has been constructed using a fixed formula for determining sample size.

Table 5.2: **Formula for Determining Sample Size**

Formula for determining sample size

$s = \{X^2\ NP(1\text{-}P)\} \div \{d^2(N\text{-}1) + X^2P(1\text{-}P)\}$

s= required sample size.
X^2= the table value of chi-square 1 degree of freedom at the desired confidence level (3.841).
N=the population size.
P= the population proportion (assumed to be .50 since this would provide the maximum sample Size)

Source: Krejcie and Morgan, 1970.

Types of Sampling

It is rarely possible to collect data from each individual in a group while conducting a research study on them. Consequently, we select a sample or the group of people we'll take part in the research. To draw substantial and valid conclusions from our results, we got to carefully decide how will we select a sample that's representative of the group as an entirety. It means the researcher ought to characterize the target population. But there are no strict rules to follow, and the researcher must depend on logic and judgment. The populace is characterized by a perfect balance with the study objectives. Occasionally, the complete population will be sufficiently small, and the researcher can include the whole populace in the study. This sort of research is called a census study since information is gathered on each member of the population. Usually, the population is too large for the researcher to endeavor to survey all of its individuals. A small, but carefully chosen sample can be used to represent the population. The sample reflects the characteristics of the population from which it is drawn and their different types of sampling.

Of the types of sampling, probability and non-probability are the important ones. In probability samples, each part of the population includes a recognized prospect of being chosen. This method utilizes some form of random determination. For a random selection method, the analyst must set up some process or procedure that ensures that the different units in your population have equal possibilities (probabilities) of being chosen. There are diverse practices of

random selection like picking a name out of a hat or box within the lottery method or selecting the short straw. As of now, researchers use computers as the gadget for producing random numbers as the basis for random selection.

Explanation of various probability methods prerequisites for the meaning of some basic terms. These are:

- **N** = the number of cases in the sampling frame
- **n** = the number of cases in the sample
- $_{N}\mathbf{C}_{n}$ = the number of combinations (subsets) of n from N
- **f** = n/N = the sampling fraction

Regarding the types of sampling, probability methods include random sampling, systematic sampling, and stratified sampling. In non-probability sampling, members are selected from the population in some non-random manner. These include convenience sampling, judgment sampling, quota sampling, and snowball sampling. The advantage of probability sampling is that sampling error can be calculated. Sampling error is the degree to which a sample might differ from the population. When concluding the population, results are reported plus or minus the sampling error. In non-probability sampling, the degree to which the sample differs from the population remains unknown.

Probability Sampling

A. Simple Random Sampling is the purest form of probability sampling. Each member of the population has an equal and known chance of being selected. When there are very large populations, it is often difficult or impossible to identify every member of the population, so the pool of available subjects becomes biased.The simplest form of random sampling is called simple random sampling.

Objective: To select *n* units out of *N* such that each $_{N}C_{n}$ has an equal chance of being selected.

Procedure: Use a table of random numbers, a lottery, a computer random number generator, or a mechanical device to select the sample.

The important question is how do we select a simple random sample? Presume that you are researching a Bank in Lucknow, the capital city of the Indian state of Uttar Pradesh, that wishes to assess clients' views of the quality of service over the past year. First, we have to get the sampling frame organized. To accomplish this, we'll go through agency records to identify every client over the past 12 months. If we're lucky, the agency has good accurate computerized

records and can quickly produce such a list. After that, we have to draw the sample. Decide on the number of clients you would like to have in the final sample. For the sake of the example, let's say you want to select 100 clients to survey and that there were 1000 clients over the past 12 months. Then, the sampling fraction is f = n/N = 100/1000 = .10 or 10%. Now, to draw the sample, you have several options. In the lottery method, you could print off the list of 1000 clients, tear them into separate strips, put the strips in a hat, mix them up well, close your eyes and pull out the first 100.

Another decent procedure would be to use the kind of ball machine that is popular with many lotteries. We would need three sets of balls numbered 0 to 9, one set for each of the digits from 000 to 999 (if we select 000 we'll call that 1000). Number the list of names from 1 to 1000 and then use the ball machine to select the three digits that select each person. The obvious disadvantage here is that we need to get the ball machines. Concerning the merits or preferences, it can be said that simple random sampling is simple to achieve and is easy to clarify to others. It is a reasonable way to select a sample, it is reasonable to generalize the results from the sample back to the population. Simple random sampling is not the most statistically efficient method of sampling and the researcher may, just because of the luck of the draw, not get a good representation of subgroups in a population. To deal with these issues, we have to turn to other sampling methods.

B. Stratified Random Samplingis a commonly used probability method that is superior to random sampling because it reduces sampling error. A stratum is a subset of the population that shares at least one common characteristic. Examples of stratum might be *males and females*, or *managers and non-managers*. The researcher first identifies the relevant stratum and their actual representation in the population. Random sampling is then used to select a sufficient number of subjects from each stratum. "Sufficient" refers to a sample size large enough to be reasonably confident that the stratum represents the population. Stratified sampling is often used when one or more of the stratum in the population has a low incidence relative to the other stratum.Stratified random sampling sometimes called *proportional* or *quota* random sampling, involves dividing the population into homogeneous subgroups and then taking a simple random sample in each subgroup. In more formal terms:

Objective: Disperse or divide the population into non-overlapping bunches or groups (i.e., strata) N1, N2, N3, ... Ni, such that N1 + N2 + N3 + ... + Ni = N. Then do a simple random sample of 'f= n/N' in each stratum. There are several key reasons why a researcher might prefer stratified sampling over simple random sampling. It assures that researcher will be able to represent not only the overall population but also key subgroups of the population, especially small

minority groups. If the researcher wants to be able to talk about subgroups, this may be the only way to effectively assure you'll be able to. If the subgroup is extremely small, he can use different sampling fractions within the different strata to randomly over-sample the small group. When the researcher uses the same sampling fraction within strata he is conducting proportionate stratified random sampling. When we use different sampling fractions in the strata, we call this disproportionate stratified random sampling. Stratified random sampling will generally have more statistical accuracy than simple random sampling. This will only be factual if the strata or groups are similar (homogeneous). If they are, we expect that the variability within groups is lower than the variability for the population as a whole. Stratified sampling capitalizes on that fact.

C. Systematic Sampling is often used instead of random sampling. It is also called an ***Nth*** name selection technique. After the required sample size has been calculated, every ***Nth***record is selected from a list of population members. As long as the list does not contain any hidden order, this sampling method is as good as the random sampling method. Its only advantage over the random sampling technique is simplicity. Systematic sampling is often used to select a specified number of records from a computer file.The researcher should follow the under-mentioned steps to achieve a systematic random sample:

- *number of the units in the population from 1 to N*
- *decide on the n (sample size) that you want or need*
- *k = N/n = the interval size*
- *randomly select an integer between 1 to k*
- *then take every kth unit*

For this to work, it is fundamental that the units within the population are randomly ordered, at the slightest concerning the characteristics the researcher is measuring.

Non-probability Sampling

A. Convenience sampling is used in exploratory research where the researcher is interested in getting an inexpensive approximation of the truth. As the name implies, the sample is selected because they are convenient. This nonprobability method is often used during preliminary research efforts to get a gross estimate of the results, without incurring the cost or time required to select a random sample.

B. Judgment sampling is a frequently used nonprobability method. The researcher selects the sample based on judgment. This is usually an extension of

convenience sampling. For example, a researcher may decide to draw the entire sample from one "representative" city, even though the population includes all cities. When using this method, the researcher must be confident that the chosen sample is truly representative of the entire population.

C. Quota sampling is the nonprobability equivalent of stratified sampling. Like stratified sampling, the researcher first identifies the stratum and their proportions as they are represented in the population. Then convenience or judgment sampling is used to select the required number of subjects from each stratum. This differs from stratified sampling, where the stratumis filled by random sampling.

D. Snowball sampling is a rarely used technique that enables the researcher to build up a sample through a chain of personally referred contacts, that is, where one person will refer the interviewer to another as a means of building a wider picture. Snowball sampling is the special nonprobability method used when the desired sample characteristic is rare. It may be extremely difficult or cost-prohibitive to locate respondents in these situations. Snowball sampling relies on referrals from initial subjects to generate additional subjects. While this technique can dramatically lower search costs, it comes at the expense of introducing bias because the technique itself reduces the likelihood that the sample will represent a good cross-section of the population.
In broad-spectrum, sampling reduces cost, is cheaper to accumulate data from a portion of the whole population, speedy process, detailed information, could be a viable and practical method, and is easier in practice. It shows that employing a sample in research saves cash and time if a suitable sampling technique is used; a suitable sample size is selected and essential precautions are taken to reduce sampling and measurement errors, then a sample should yield substantial, valid, and reliable information.

5.2Common Methods of Diagnosis: Survey as a Type

The common method of diagnosing and solving social problems is that of undertaking surveys. Surveys are very supportive in solving several types of social problems. Dictionary meaning of survey is overlooking and as such social surveys imply identifying social problems. Young (1982) has said that a social survey is usually an inquiry into the collection activities and living conditions of a group of people. According to Kerlinger (1986), survey research studies large and small populations (universe) by selecting and studying samples chosen from the populations and discovering the relative incidence, distribution, and interrelations of sociological and psychological variables. A social survey of a community is the methodical study of its conditions and needs for presenting a

constructive program of social advance. It is a process by which quantitative facts are collected about the social aspects of a community'sconfiguration and actions.

Webster (1985) defines a survey as a critical inspection, often official, to provide exact information; often a study of an area concerning a certain condition or its prevalence, as a survey of schools. The social survey is simply a method of analysis in a scientific and orderly form and for defined purposes of a given social situation or problem or population. Many research problems necessitate the methodical collection of data from a population through the use of personal interviews or other data-gathering devices. These studies are usually called surveys, especially when they are concerned with a large and widely diverse group of people.

In exact, the survey is a non-experimental, descriptive research strategy. Surveys can be practical when an analyst wants to gather information on phenomena that cannot be directly observed. It is the essential method of quantitative research – investigate with a few claims to statistical precision. There are several types of surveys and several key considerations within each. There are two important factors in surveying – sampling and return rate – and giving short descriptions of survey types – with pros, cons, and cautions. In a survey, researchers sample a population and a population is any set of persons or objects that possesses at least one common characteristic. Since populations can be quite large, researchers directly question only a sample (i.e. a small proportion) of the population.

Merits and Demerits of Survey Method

Survey research could be a basic component of measurement and applied social research. It may be a wide area that envelops numerous strategies that include inquiring questions to particular respondents. However, there are numerous advantages and disadvantages to this method of inquiry. The different advantages and disadvantages of the survey method are as follows:

Demerits (Disadvantages)

There are different disadvantages or demerits of the survey method such as inflexible design, rigid strategy, unideal for controversial issues, probable inappropriateness of questions, etc. Though the survey method is animportant method used in social science research; it has many other shortcomings which are as follows:

- Surveys are rigid and inflexible in that they compel the initial study design (the tool and administration of the tool) to remain unchanged throughout the data collection.
- Surveys are based on a methodology relying on standardization that forces the researcher to develop questions general enough to be minimally suitable for all respondents, possibly missing what is most appropriate to many respondents.
- In survey studies, the researcher should make sure that a large number of the selected sample will reply.
- In survey studies, it may be hard for participants to recall information or to tell the truth about a controversial question.
- As opposed to direct observation, survey research (excluding some interview approaches) can seldom deal with "context."

Merits (Advantages)

The advantages or merits of the survey method are that the surveyor appeal to a larger audience. More people are willing to sit down and discuss their opinions rather than go through an actual testing demonstration. The disadvantage to this is that the surveyor has a more biased group. The surveyor cannot learn by trial and error. The advantages to the test are that have some people who are going to be more honest while doing this, rather than doing a survey. Surveyors can see people's reactions and that may spark some more ideas for the product. The downfall to this is that some people may become hesitant and the surveyor's statistics may become flawed. Additional merits are as follows:

- Surveys are very useful in describing the characteristics of a large population. No other method of observation can provide this general capability.
- Surveys are relatively inexpensive especially self-administered surveys are very cheap.
- They can be administered from remote locations using mail, email, or telephone.
- Surveys can incorporate a very vast area. In surveys very large samples are feasible, making the results statistically significant even when analyzing multiple variables.
- Many questions can be asked about a given topic giving considerable flexibility to the analysis.
- There is flexibility at the creation phase in deciding how the questions will be administered: as face-to-face interviews, by telephone, as group-administered written or oral survey, or by electronic means.
- Standardized questions make measurement more precise by enforcing uniform definitions upon the participants.

- Standardization ensures that similar data can be collected from groups and then interpreted comparatively (between-group study).
- Usually, high reliability is easy to obtain--by presenting all subjects with a standardized stimulus, observer subjectivity is greatly eliminated.

Kinds of Surveys

A social survey can be of distinctive kinds. Its scope can be both very limited as well as exceptionally comprehensive. Surveys can be conducted by diverse organizations and agencies like government and state offices etc. Surveys can be direct or indirect. A few sorts of surveys are:

1. *Regular or Ad hoc Survey*: When a body, individual, or organization conducts any survey at normal interims, e.g. the economic study or the census survey, it is called a regular survey. But, if when a survey is conducted to discover a few data required for a specific reason and the purpose of the study is completed as soon as the objective is achieved, the survey is called an *ad hoc* study.

2. *Official and Non-Official Survey*: Surveys conducted by the government for some official or philanthropic (charitable or humanitarian) purposes are called official surveys. However, surveys are also conducted by individuals, NGOs, and research organizations without the help of the government, and such surveys are called non-official surveys.

3. *Direct or indirect Surveys*: Surveys have been classified as direct or indirect surveys. In direct surveys, facts can be quantitatively interpreted whereas in indirect surveys it is not possible and results are to be concluded from the available data by some indirect method.

4. *Primary or Secondary Survey*: A *primary* survey is one in which the surveyor himself or herself starts work on a particular subject and personally collects all data, facts, and figures. However, in the case of *secondary*, the surveyor himself /herself does not start the work but depends on the work which has already been done by somebody else. However, primary data is more important than secondary data.

5. *Personal or Postal Survey*: A *personal survey* is a method in which the surveyor is required to move about and collect information personally but on the other hand in the case of a *postal survey*, the surveyor gets information through the medium of the post i.e. by mailing questionnaires.

6. *Personal or Impersonal Survey*: A personal survey is one in which information is sought from an individual about problems connected with his life. But in an *impersonal survey* information called for does not concern the person concerned himself but is about somebody else and thus the person who is being interviewed has no direct concern with the person about whom information is being gathered but only indirect concern.

7. *Open or Confidential Survey*: In a circumstance in which the nature, purpose, and result of the survey are open to the public or anybody else it is called an *open or public survey*. The informants' identity is kept confidential in this type of survey. In any case, on the other hand, when the results of the survey are meant only for the utilization of the body or organization which is carrying out a survey, that's called a confidential survey.

8. *Comprehensive or Limited Survey*: When the survey covers a huge field and the surveyor asks for information that is of wide variety and range, the survey is called a comprehensive survey. However, when the field covered is comparatively limited, it is called a limited survey.

9. *Social Survey and Social Research*: It is to be kept in head that social research and social survey differ in aim, scope, method, and utility. However, regarding the aims, the social survey is conducted with some utility aspect as an aim whereas social research is not concerned with that. Social research helps in adding to the exposition of knowledge and discovering new facts, whereas social survey simply studies social problems. Social research has a comparatively more scientific view compared to a survey that has a utilitarian (serviceable) perspective.

10. *Cross-Sectional Surveys*:Cross-sectional surveys are used to gather information on a population at a single point in time. An example of a cross-sectional survey would be a questionnaire that collects data on how parents feel about the Internet use of their children. A different cross-sectional survey questionnaire may make an effort to determine the relationship between two factors, like the education of parents and views on internet use by children.

11. *Longitudinal Surveys*:Longitudinal surveys gather data over some time or for a long period. The researcher may then analyze changes in the population and attempt to describe and or explain them. The three main types of longitudinal surveys are *trend studies, cohort studies, and panel studies*.

a. Trend Studies

Trend studies focus on a specific population, which is sampled and scrutinized repeatedly. Trend studies center on the same population of people and use opinion poll surveys to look at their states of mind or attitudes over time. Researchers conducting trend studies are fascinated by how people's inclinations alter over time, i.e., *trends.* A trend study samples diverse groups of people at different points in time from the same population. While samples are of the same population, they are typically not composed of the same people. Trend studies, since they may be conducted over a long period, do not have to be conducted by just one researcher or research project. A researcher may combine data from several studies of the same population to show a trend. Take an example of a trend study---before an election a sample of adults is drawn. A year afterward, a different sample drawn from the same population shows a change (alter). Another example of a trend study would be a yearly survey of librarians asking about the percentage of reference questions answered using the internet.

b. Cohort Studies

As a type of longitudinal study, cohort studies sample a cohort (a group of people who share a defining characteristic, ordinarily who experienced a common event in a selected period, such as birth or graduation) and perform cross-section observations at interims (intervals) through time. Cohort studies focus on a particular population, sampled and studied more than once but with a different focus. For example, a sample of the year 1999 graduates at Cambridge University, England could be questioned regarding their attitudes toward professionals in libraries. Five years later, the researcher could question another sample of the year 1999 graduates, and study any changes in attitude. A cohort study would sample the same class, every time. If the researcher studied the class of 2004 five years later, it would be a trend study, not a cohort study.

c. Panel Studies

Panel studies are a specific design of the longitudinal study in which the unit of analysis is followed at specified interims (intervals) over a long period, usually many years. Panel studies permit the researcher to find out why changes in the population are occurring since they use the same sample of people every time. That sample is called a 'panel'. The key characteristic of panel studies is that they collect repeated measures from the same sample at diverse points in time. A researcher could, for example, select a sample of graduate students, and ask them questions about their library practice. Every year thereafter, the researcher would contact the same people, ask them similar questions, and ask them the

reasons for any changes in their habits. Panel studies, while they can yield extremely specific and useful explanations, can be difficult to conduct. They tend to be expensive, they take a lot of time, and they suffer from high attrition rates.

Representative Sampling

Surveys are supposed to be just as rigorously designed and administered as any other investigative research method. For research using surveys, two extra considerations are of prime significance e.g. representative sampling and question design. A sample is representative when it is an accurate proportional representation of the population under study. If the researcher wants to study the attitudes of students regarding library services, it would not be enough to interview every 100th person who walked into the library. That technique would only measure the attitudes of students who use the library, not those who do not. In addition, it would only measure the attitudes of students who happened to use the library during the time you were collecting data. Therefore, the sample would not be very representative of students in general. To be a truly representative sample, every student would have to have had an equal chance of being chosen to participate in the survey. This is called *randomization*.

Afar the aforementioned assortments of surveys, we got to know that there are other sorts of surveys too which are administered through distinctive means. It implies that the types of studies administered through diverse means are varied. Hence, it is significant to portray other kinds of survey methods that are administered through assorted methods and means:

- Mail
- Telephone
- Computer/Online or web survey research (internet survey research), and
- In-person (hybrid methods)

Furthermore, some of these might be self-administered or done by interviewers. There are also *hybrid* techniques.

Mail Surveys: Speaking in a forthright way mail surveys are paper and pencil instruments that are mailed to respondents. They are self-administered by the recipient, which means there is little control over the feedback. Nevertheless, they are the most suitable for respondents, who can complete them in the place and time of their choosing. Mail surveys are best for the collection of responsive information because they provide secrecy for the respondent. Mail surveys provide the most excellent opportunities for both random samples and

targeted random samples. They are a very cheap way to collect data from large numbers of people.

Telephone Surveys: In the areas having the facilities of telephone, Surveys by telephone might be conducted by trained interviewers or by automated systems. Data collected through telephone surveys usually havethe least missing or erroneous data, principally because it offers the opportunity for personal work as only people with telephones are included in the sample. Telephone surveys offer a good opportunity to reach respondents living in distant areas. Telephone interviews can be tape-recorded also. They also allow for relatively quick data collection. It provides the opportunity to take questions based on previous experiences and regulate the survey.

Computer/Online surveys or Web survey research (internet survey research): In the 21st century, the computer is a popular device for online surveys. An online survey overview may be an organized survey that your target audience completes over the web for the most part through filling out a form. Online surveys can shift in length and format (organized). Surveys can be managed by a computer, particularly on the web by utilizing Surveys, Skype, Viber, Messenger, WhatsApp, ZOOM, MSTeams, or any other video conferencing or virtual mode innovation. It gives the likelihood to conduct complicated research since it helps respondents through the survey. Surveyors can moreover comprise visual help or pictures as a portion of these surveys. It offers specialized preferences, such as control of order bias, etc. Be that as it may, it has got issues too. Only respondents with access to computers outside the work environment can sensibly be anticipated to respond.

Hybrid Methods: Surveyors can combine any of the methods – and additional technologies – to help get better, faster, and more responses. The most common one is Telephone – Mail – Telephone (TMT), in which he recruits, screen, instruct respondents by phone and then send them a survey. They can either mail the questionnaire back or call an interviewer. The same method can be used with a fax machine or computer. Online bulletin boards are another hybrid method. Respondents are recruited, screened, and instructed by phone and then respond online – often to comments by other respondents as well as survey questions.

Beyond the abovementioned kinds and means of a survey, it ought to be noted that *surveys* can be divided into further major types, especially in two expansive categories: *the questionnaireand the interview*. Questionnaires are usually paper-and-pencil instruments that the respondent completes. Interviews are completed by the interviewer based on what the respondent says. Sometimes, it's hard to tell the difference between a questionnaire and an interview. Survey

research has changed dramatically in the last ten years. A whole new variation of group interviews has evolved as a focus group methodology.

It is natural that when most people think of questionnaires, they think of the mail survey. There are many advantages to mail surveys. They are relatively inexpensive to administer. Surveyors can send the same instrument to a wide number of people. They allow the respondent to fill it out at their convenience. Nevertheless, there are some disadvantages as well. Response rates from mail surveys are often very low. And, mail questionnaires are not the best vehicle for asking for detailed written responses. A second type is agroup-administered questionnaire. A sample of respondents is brought together and asked to respond to a structured sequence of questions. Traditionally, questionnaires were administered in group settings for convenience. The researcher could give the questionnaire to those who were present and be fairly sure that there would be a high response rate. If the respondents were unclear about the meaning of a question they could ask for clarification.

A household drop-off survey is also a familiar type of questionnaire. In this approach, a researcher meets the respondent at his/her home or hands over the survey questions to the respondent. In some cases, the respondent is asked to mail it back or the interviewer returns to pick it up. This approach attempts to mix the advantages of the mail survey and the group-administered questionnaire. Like the group-administered questionnaire, the interviewer makes personal contact with the respondent -- they don't just send an impersonal survey instrument. And, the respondent can ask questions about the study and get clarification on what is to be done. This would increase the number of people who are willing to respond.

Interviews are a far more personal form of research than questionnaires. In the personal interview, the interviewer works directly with the respondent. Unlike with mail surveys, the interviewer has the opportunity to probe or ask follow-up questions. And, interviews are generally easier for the respondent, especially if what is sought are opinions or impressions. Interviews can be very time-consuming and resource-intensive. The interviewer is considered a part of the measurement instrument and interviewers have to be well-trained in how to respond to any contingency.

Precautions in Survey Question Design

It is imperative to plan the questions very watchfully. An inadequately designed questionnaire renders meaningless results. There are many factors to think about. Research scholar Babbie (1992) stretches the following seven indicators:

1. It is necessary to make items clear (don't assume the person you are questioning knows the terms you are using).
2. Avoid double-barreled questions (make sure the question asks only one clear thing).
3. The respondent must be competent to answer (don't ask questions that the respondent won't accurately be able to answer).
4. Questions should be relevant (don't ask questions on topics that respondents don't care about or haven't thought about).
5. Short items are best (so that they may be read, understood, and answered quickly).
6. Avoid negative items (if you ask whether librarians should not be paid more, it will confuse respondents).
7. Avoid biased items and terms (be sensitive to the effect of your wording on respondents).

Busha and Harter (1980) offer the following list of ten clues:

1. Unless the nature of a survey warrants its usage, avoid slang, jargon, and technical terms.
2. Whenever feasible, develop consistent response methods.
3. Make questions as impersonal (cool and neutral) as possible.
4. Do not bias later responses by the wording used in earlier questions.
5. As an ordinary rule, sequence questions from the general to the specific.
6. If closed questions are employed, try to develop exhaustive and mutually exclusive response alternatives.
7. Insofar as possible, place questions with similar content together in the survey instrument.
8. Make the questions as easy to answer as possible.
9. When unique and unusual terms need to be defined in questionnaire items, use very clear definitions.
10. Use a good-looking questionnaire format that conveys a professional image.

Objectives of Survey Method

The survey is a methodical data collection technique about a sample drawn from a larger population. The best-known form of a survey is the opinion poll, in which information is gathered from a sample of individuals by asking questions. However, surveys may also be conducted of organizations or events. Like any other research study, a survey must begin with a statement of its objectives: *What does one want to study*? The objectives determine the population of interest, from which the sample is to be drawn, as well as the questions that are to be asked. The questions may be asked in face-to-face or telephone interviews

or using a self-administered questionnaire, which may be mailed to respondents. Following data collection, the answers need to be coded for data analysis. Data analysis, interpretation of the results, and dissemination of the findings complete the research process.

The research objectives determine the population about which data are to be collected. If data can be gathered from all members of the population, the study is called a census. In most cases, however, this is unfeasible and a sample will be drawn from a well-defined population. A survey has its objectives also. The primary objectives of the survey are:

a. To gather data on social trends to monitor changes in the living conditions and well-being of people over time;
b. To provide information on specific social policy issues of current or emerging interest. This survey monitors changes in time use, including time stress and well-being.
c. The objectives of the survey are to gather data on diverse trends to monitor changes over time.
d. The data collected provide information to all levels of government when making funding decisions, developing priorities, and identifying areas of concern for legislation, new policies, and programs.
e. Researchers and other users use this information to inform the general population about the changing nature of time.

5.3Questionnaire and Structured Interview Schedule

A questionnaire is a list of questions or items utilized to assemble data from respondents about their demeanors, attitudes, experiences, suppositions, opinions, etc. Questionnaires can be used to gather quantitative as well as qualitative subjective information,commonly used in social, health as well as market research. It is a research instrument comprising a series of questions to gather data from respondents through a survey or measurable statistical study. There are fundamental contrasts between a questionnaire and a schedule. Both appear as a set of questions. But in the case of a questionnaire, the answers are to be recorded by respondents themselves whereas in the case of a schedule answers are to be recorded by the enumerator particularly enlisted for the reason. Questionnaires are a set of questions that are either given to respondents to fill up, complete, or posted to respondents. Young (1982) affirms that:

Anextensively broadcast questionnaire is usually unavailable for anything more than obtaining of raw material of the statistician……it may furnish confirmation of hypotheses, but is very rare that it brings to light facts of structure and

function not already within the knowledge of the investigator, or at last suspected by him to exist.

According to Goode and Hatt (1952), the word questionnaire refers to a device for securing answers to questions by using a form that the respondent fills in himself. Jary and Jary (2005) have defined a questionnaire as a form containing questions to be administered to several people who may obtain information and record opinions. Questions of a questionnaire may be *open-ended* or *closed-ended*. It means questionnaires are restricted to two basic types of questions:

An Open-ended (or "open question") is a question where the researcher doesn't provide the respondent with a set answer from which to choose. Rather, the respondent is asked to answer "in their own words". Open-ended questions are designed to allow respondents to give their answers to questions. This produces mainly qualitative data. Closed-ended (or "closed question") is a question for which a researcher provides a suitable list of responses (Yes / No). It is designed to give a specific answer (such as 'Yes' or 'No'). This produces mainly quantitative data. In actuality, closed-ended questions are often preferred in that they will help the researcher achieve what they principally want from questionnaires: clear, concise, and definite answers that can be swiftly and easily quantified and then presented in numeric form.

Questionnaires may well result from an attempt to operationalize a concept, the process by which an abstract idea is broken down into subheadings that are more easily understood. Questionnaires can be distributed in several ways, including by hand and by post. Though an outdated mode, postal questionnaires are most likely to reach the largest group, although they have the lowest response rates. Those having an interest in the research problem might return the filled questionnaires. Questionnaires are widely used because they allow a large number of questions to be asked to a wide group in a wide area in a short period with less expense. The blueprint (design) of each questionnaire or structured interview schedule creates and poses its challenges yet there are some common considerations: being clear about the purpose of the questionnaire/interview schedule and deciding what to include choosing the appropriate type of research instrument, deciding on open or closed formats for questions, the order in which questions are asked the suitable wording of questions pretesting and piloting of the draft questionnaire or interview schedule.

Steps in Designing and Administering a Questionnaire

A well-made questionnaire that is used efficiently can collect information on both the overall performance of the test system as well as information on specific components of the system. If the questionnaire includes demographic

questions on the participants, they can be used to correlate performance and satisfaction with the test system among different groups of users. It is significant to remember that a questionnaire should be viewed as a multi-stage process beginning with the definition of the aspects to be examined and ending with an interpretation of the results. Every step in designing and administering a questionnaire needs to be designed carefully because the final results are only as good as the weakest link in the questionnaire process. Although questionnaires may be cheap to administer compared to other data collection methods, they are every bit as expensive in terms of design time and interpretation.

1. Defining the objectives of the survey
2. Determining the sampling group
3. Writing the questionnaire
4. Administering the questionnaire
5. Interpretation of the results

Preparations and Guidelines in Designing Questionnaire

Questions may be premeditated to gather either qualitative or quantitative data. By their very nature, quantitative questions are more exact than qualitative ones. For example, the word easy and difficult can mean fundamentally different things to different people. Any question must be carefully crafted, but in particular, questions that assess a qualitative measure must be phrased to avoid ambiguity. Qualitative questions may also require more thought on the part of the participant and may cause them to become bored with the questionnaire sooner. Questionnaires can measure both qualitative and quantitative data well, but that qualitative questions require more care in design, administration, and interpretation.

The researcher must be comprehensible about the purpose of what to include in the questionnaire or interview schedule. The researcher must decide whether the instrument is intended to be primarily descriptive or explanatory. If the questionnaire/interview schedule is explanatory in purpose the researcher needs to have clear hypotheses which will determine which variables need to be included. At the very beginning, the researcher should design questions that are simple for the target respondents so that they can answer easily by understanding the questions. Emotional, vulgar, and hurting questions should not be used. The language used should be straightforward and comprehensible. Pretesting of questions should be done so that to make timely corrections. Questionnaire results are easily quantified and presented numerically, especially if devices such as optical readers are used. Their data are reliable and generalizable. Trends and relationships can be identified, the hypothesis tested, and causal relationships identified. Unlike unstructured interviews, which they

closely resemble, they avoid the problem of interviewer bias, where the physical presence of the interviewer can discourage respondents from giving the answers they may give anonymously. An inquiry of this format may well be the only way of gathering large amounts of data across a wide range of people.

As one of the methods of data collection, a questionnaire is a list of written questions that can be completed in one of two basic ways. Firstly, respondents could be asked to complete the questionnaire in the researcher's absence. This is a postal questionnaire and (loosely) refers to any questionnaire that a respondent completes without the aid of the researcher. Secondly, respondents could be asked to complete the questionnaire by verbally responding to questions in the presence of the researcher. This variation is called a structured interview. Although the two variations are similar (a postal questionnaire and a structured interview could contain the same questions), the difference between them is significant. In the case researcher is concerned with protecting the respondent's secrecy then it might be more suitable to use a postal questionnaire than a structured interview.

Definite guidelines need to be followed while developing questions for questionnaires or interviews or focus groups. It helps to ensure that respondents provide information that is useful and can later be analyzed. The guidelines are as follows:

1	**2**	**3**	**4**	**5**
Key Preparation	*Directions to respondents*	*Questions* Content	*Wording Questions*	*Questions* order

Key Preparation

Questionnaires are a pivotal portion of the research. Numerous tools are used to discover approximately how people think, feel, and act, but the act of inquiring remains central to finding out what people unequivocally think. In case you need to discover something about a person, you'd more often than not just inquire about them. If you need to inquire a few questions for a group of people, perhaps you'd get together as a group. In case you need to research the answers, you'd give them a questionnaire. Before you start to design your questions, clearly articulate what problem or need is to be addressed using the information to be gathered by the questions. Review why you're doing the evaluation and what you hope to accomplish by it. This provides focus on what information you need and, ultimately, on what questions should be used.

Instructionsto Respondents

There are diverse contemplations in planning a questionnaire. For instance, a great questionnaire ought to be substantial, valid, dependable, reliable, clear, compact, and interesting for the respondents. It is imperative to plan the questionnaire based on a conceptual system or frame, scrutinize each question for pertinence, relevance, and clarity, and think of the investigation and analysis you're aiming to perform.It is additionally vital to avoid using an overly complex structure with the design of your questionnaire, particularly if it is being administered on paper. A lengthy questionnaire is less likely to be completed and returned. It's vital to set up clear objectives for your research project and to maintain a strategic distance from including questions that do not contribute to the accomplishment of this goal. Respondents will be more responsive to a questionnaire that they feel can be completed rapidly and simply. Clear directions should be given to the respondents so that they may understand and answer the questions.A few directions to the respondents are as follows:

1. Comprise a brief explanation of the purpose of the questionnaire.
2. Include a clear explanation of how to complete the questionnaire.
3. Include directions about where to provide the completed questionnaire.
4. Note conditions of confidentiality, e.g., who will have access to the information, if you're going to attempt to keep their answers private and only accessed by yourself and/or someone who will collate answers. It is vital to note that you do guarantee confidentiality about their answers. If a court sued to see answers, you would not likely be able to stop access to this information. However, you can assure that you will make every reasonable attempt to protect access to their answers.
5. You should consider using an informed consent form, as well.

Questions Content

The questions ought to be user-friendly and focus on important and relevant questions. The questions need to be user-friendly and center on vital and pertinent questions. The questions can be composed so that they can be reacted to and responded to by all sample respondents. The questionnaire should be developed to avoid skips or branching. Moreover, a good questionnaire ought to be substantial, solid, clear, brief, interesting, and encouraging. They should be based on a conceptual framework, scrutinize each question for pertinence and clarity, and think of the analysis you're going to perform at the conclusion. Ask about what you need to know, i.e., get information regarding the goals or ultimate questions you want to address by the evaluation.

- ☞ *Will the respondent be able to reply to your question, i.e., do they know the reply?*

☞ *Will respondents want to reply to the question, i.e., is it as well private or senseless?*

Questions Wording

- Will the respondent understand the wording, i.e., are you using any slang, cultural-specific or technical words?
- Are any words so strong that they might influence the respondent to answer a certain way? Attempt to avoid the use of strong adjectives with nouns in the questions, e.g., "highly effective government," "prompt and reliable," etc.
- To ensure you're asking one question at a time, avoid the use of the word "and" in your question.
- Avoid using "not" in your questions if you're having respondents answer "yes" or "no" to a question. The use of "not" can lead to double negatives, and confusion.
- If you use multiple-choice questions, be sure your choices are mutually exclusive and encompass the total range of answers. Respondents should not be confused about whether two or more alternatives appear to mean the same thing. Respondents also should not have a preferred answer that is not among the choices of an answer to the question.

Questions Order

- Be careful not to include so many questions that potential respondents are dissuaded from responding.
- Attempt to get recruit respondents' motivation to complete the questionnaire. Start with fact-based questions and then go on to opinion-based questions, e.g., ask people for demographic information about themselves and then go on to questions about their opinions and perspectives. This gets respondents engaged in the questionnaire and warmed up before more challenging and reflective questions about their opinions. (Consider if they can complete the questionnaire anonymously; if so, indicate this on the form where you ask for their name.)
- Attempt to get respondents' commentary in addition to their ratings, e.g., if the questionnaire asks respondents to choose an answer by circling an answer or provide a rating, ask them to provide commentary that explains their choices.
- Include a question to get respondents' impressions of the questionnaire itself. For example, ask them if the questionnaire was straightforward to complete ("yes" or "no), and if not, provide suggestions about how to improve the questionnaire.

- Pilot or test your questionnaire on a small group of clients or fellow staff. Ask them if the form and questions seemed straightforward. Carefully review the answers to the questionnaires. Does the information answer the evaluation questions or provide what you want to know about the program or its specific services? What else would you like to know?
- Finalize the questionnaire. Finalize the questionnaire according to the results of the pilot test. Put a date on the form so you can keep track of all future versions.

Types of Questionnaires

On the premise of its structure, a questionnaire can be partitioned into two major types: *Structured* and *unstructured*. A blend of these both is the *quasi-structured questionnaire* that's used generally in social science research. Structured questionnaires incorporate pre-coded questions with well-defined skipping patterns to follow the sequence of questions. Based on these two wide basic divisions, there may be distinctive types of questionnaires such as computer questionnaires where respondents are asked to answer the questionnaire which is sent by mail, telephone survey, in-house study, mail questionnaire, open question questionnaires, multiple-choice questions, dichotomous questions, scaling questions, etc.The major types i.e. Structured and unstructured can be explained in detail as follows:

1. Structured Questionnaires

A structured questionnaire posits definite, concrete, and preordained questions, that is they are prepared in advance and not constructed on the spot during the questioning period (Young, 2000). Additional questions may be used when the need arises to clarify vague or inadequate replies by informants or when more details are needed than those supplied by them. The form of the particular questions may require responses that are either closed or open. Closed-form of questions are used when categorized data are required, that is when they need to be put into definite classifications.

2. Unstructured Questionnaires

Unstructured questions are frequently referred to as interview guides, also aims at precision and contain definite subject matter areas, the coverage of which is required during the interview. The interviewer is free within limits to arrange the form and timing of the inquiry. As it is unstructured flexibility is the feature of this type of question. Unstructured questionnaires are designed to obtain viewpoints, attitudes, and opinions, and show interrelationship and interconnectedness between data. The main objective is to give the respondents maximum opportunities to reveal how they had arrived at or developed

theirworld of experience. This form of questionnaire is used for intensive studies and assumes insight, articulateness, and possession of facts by respondents.

3. Quasi-structured Questionnaires

Questionnaire design is a crucial part of the research because an unfitting questionnaire misleads the research, academics, and policymaking. Hence it is necessary to pay adequate attention while designing a questionnaire that meets the researchers' research objectives. Of the types of questionnaires*quasi structured questionnaire* is a common and pragmatic practice in that most of the questions are structured, however, it is comfortable to have some unstructured questions whose answers are not feasible to enumerate completely. Such a type of questionnaire is called a quasi-structured questionnaire. Not all questions are easily pre-coded with almost possible alternatives to answers. Given answersto alternatives to some questions, the standard questionnaires are left as 'others' (please specify). Such types of questionnaires are called quasi-structured questionnaires.

Uses of Questionnaire Method

Questionnaires are flexible in what they can measure; in any case, they are not equally suited to measuring all sorts of data. Data can be classified in two ways, *Subjective vs. Objective* and *Quantitative vs. Qualitative*. Survey questionnaires can contain both quantitative and qualitative questions. The quantitative questions might take the frame of yes/no, or rating scale (1 to 5), though the qualitative questions would display a box where respondents can write in their own words.When a questionnaire is administered, the researchers' control over the environment will be slightly limited. This is why questionnaires are cheap to administer. This loss of control means the validity of the results is more reliant on the honesty of the respondent. Nevertheless, it is more complicated to claim complete objectivity with questionnaire data than with the results of a tightly controlled laboratory test. A more elaborate questionnaire design or administration may provide slightly better objective data, but the cost of such a questionnaire can be much higher and offset their economic advantage. Overall, questionnaires are better suited to gathering reliable subjective measures, such as user satisfaction, with the system or interface in question. Some of the other uses of the questionnaire method are:

- Questionnaires are used extensively as the main method in *social surveys*where it's necessary to get the views of very large numbers of people. The fact that the respondent does the time-consuming work of completing the questionnaire makes it relatively easy to use this method to reach and record the views of such large numbers. The National Census in

different countries conducted every ten years, for example, uses a questionnaire to get the views of the total population in the country.

- It is relatively easy to reach large numbers of people using a questionnaire, sample sizes can be very large (for example, it is possible to reach everyone in a target population if the time and resources are available - as in the National Census which is funded by the government). With the potential for large sample sizes, questionnaires make it easier for the researcher to generalize their finding from the sample to the target population.
- It must be noted that questionnaires are very cost-effective when compared to face-to-face interviews. This is especially true for studies involving large sample sizes and large geographic areas. Written questionnaires come to be even more economicaland cost-effective with the increase in the number of research questions.
- Questionnaires are easy to analyze. Data entry and tabulation for nearly all surveys can be easily done with many computer software packages.
- Questionnaires are familiar to most people. Nearly everyone will have some unique experience while completing questionnaires and questionnaires generally do not make people uneasy as in a face-to-face interview. Questionnaires reduce bias. There is a uniform question presentation and no middle-man bias. The researcher's own opinions will not influence the respondent to answer questions in a certain manner. There are no verbal or visual clues to influence the respondent.
- Questionnaires are less disturbing than phone or face-to-face surveys. When a respondent gets a questionnaire in the mail, he is free to fill (complete) the questionnaire at his comfort on his timetable. Dissimilarto other research methods, the respondent is not interrupted by the research instrument. Nevertheless, some people might be scared when answering questions.

Strengths of the Questionnaire Method

- The researcher can contact large numbers of people quickly, easily, and efficiently using a postal questionnaire (since all he/she has to do is identify the group that will be targeted and posts the list of questions).
- Quick and easy to administer. It can help get a large amount of information in a short time. Questionnaires are relatively quick and easy to create code and interpret (especially if closed questions are used). In addition, the respondent - not the researcher - does the time-consuming part of completing the questionnaire.
- A questionnaire is easy to regulate or standardize. For example, every respondent is asked the same question in the same way. The researcher,

therefore, can be sure that everyone in the sample answers the same questions, which makes this a very reliable method of research.

- Questionnaires can be used to explore potentially uncomfortable and embarrassing areas (such as private, sexual, and criminal matters) more easily than other methods. The questionnaire can, for example, be both anonymous and completed in privacy. This increases the chances of people answering questions honestly because they are not intimidated by the presence of a researcher.
- Allows for respondents' participation.
- Questionnaires are stress-free to repeat ("replicate") because they are easily standardized. Each respondent, wherever they may be, answers the same question and it is easy for another researcher to repeat the research.

Drawbacks of the Questionnaire Method

There are distinctive drawbacks or limitations of questionnaires such as untrustworthy answers, unanswered questions, difficulty to communicate feelings and emotions, differences in understanding and interpretation, trouble in understanding complex questions, hidden motive or agenda of the respondents, unconscientious reactions, lack of personalization, etc. In the questionnaire, the quality of information is related to the quality of the questionnaire. The questionnaire requires that respondents must have the reading and writing ability to understand and complete the question. Hence it is useless in the context of illiterate and less educated people. Some of the other limitations of the questionnaire are as follows:

- The format of the questionnaire design makes it difficult for the researcher to examine complex issues and opinions. Even where open-ended questions are used, the depth of answers that the respondent can provide tends to be morelimited than with almost any other method of research. This makes it difficult for a researcher to gather the information that is rich in depth and detail.
- From an interactionist perspective main problem with a questionnaire is that they lack validity. Although respondents may answer a question, in the same way, the meaning they give to that answer may vary from individual to individual. According to the way they have understood and interpreted the question. For example, what may be crucial for the researcher may not be of the same importance to the respondents. A very small part of the respondents' view of the world is revealed, and the researcher gains little or no first-hand experience of the world view of others, or how they interact with those around them. As a final point, completing a questionnaire does little to involve or empower the respondent in the whole process of research.

- A questionnaire frequently needs a follow-up interview or observation. Moreover, it may be troublesome to construct a questionnaire and may have a low reaction rate, responses may be deficient. Moreover, responses may be troublesome to interpret (open-ended) questions.
- With a postal questionnaire, the researcher can never be certain approximately the person to whom the questionnaire is sent will truly fill it up. For instance, in case your research is concerned with finding out the opinions of ladies on a range of issues, it would be less than useful if an unknown number of questionnaires sent by the researcher were filled in by men.
- Where there's no direct presence of the researcher, it's continuously troublesome to know whether or not a respondent has caught on to (understood) a question properly.
- The researcher should anticipate the question's answer. This is a problem that can - to some extent - be avoided by conducting a pilot study before conducting the real survey.
- The reply rate is called the response rate (that is, the number of questionnaires that are returned to the researcher) and tends to be very low for postal questionnaires. The questionnaire may be lost where postal services are delicate and delayed. Around 25 to 30 percent return of questionnaires is probably something that most researchers would happily settle for and this may mean that a carefully-designed sample becomes unrepresentative of a target population.
- The problem of a self-selecting sample is mostly evident concerning questionnaires.
- When a response rate is very low, the responses received may only be the opinions of a very highly motivated section of the sample (that is, people with strong opinions who take the time and trouble to complete and return a questionnaire).

Questionnaires, foremost, have generally low validity because they do not explore questions in any detail or depth. Complex issues which require a respondent to explain their reasons for believing something are difficult to explore using this method. Where closed questions are used the respondent is restricted to answering questions using the categories provided by the researcher - there is little or no scope for the respondent to qualify the meaning of their answers. The questions asked are, by definition, those considered important by the researcher. It is easy, therefore, to miss important information because you fail to ask appropriate questions. However, the fact that postal questionnaires can be anonymous means respondents may be encouraged to answer questions truthfully in the knowledge they cannot be identified. This increases the validity of their responses.

Structured Interview Schedule

As a procedure of communication,an interview is an interaction in which the subject or interviewee gives the needed information verbally in a face-to-face situation. Hence, it is an oral questionnaire. In a research situation, it may be seen as an effective, informal, conversation, initiated for a specific purpose as it focuses on certain areas. The main objective may be the exchange of ideas and experiences and the drawing out of information. A structured or organized interview is designated as a directive interview. Also known as a standardized interview or a researcher-administered survey, a structured interview is a quantitative research strategy commonly employed in survey research. The methodologyof structured interview points to guarantee that each interview is displayed with the same questions in the same order. This guarantees that answers can be reliably aggregated and comparisons can be made with confidence between sample subgroups or between different survey periods. Structured interviews are in numerous ways comparative or the same as questionnaires, in that they contain pre-set questions that are asked within the same order each time. The only real contrast is that a structured interview comprises a spoken question-and-answer session between the questioner (interviewer) and interviewee, while a questionnaire will be given to respondents to fill up in private. But, the presence of the interviewer in this process creates numerous disadvantages and advantages.

As a crucial approach to data collection, structured interviews are a means of collecting information (data) for a statistical survey. The data is collected by an interviewer instead of through a self-administered questionnaire. Interviewers read the questions precisely as they show up on the survey questionnaire. The choice of answers to the questions is frequently fixed (close-ended) in advance, even though open-ended questions can moreover be included in a structured interview. A structured interview standardizes the order in which questions are inquired of survey respondents, so the questions are continuously replied to within the same context. This can be important for minimizing the impact of context effects, where the answers given to a survey question can depend on the nature of the preceding questions. Even though context impacts can never be avoided, it is often desirable to hold them constant across all respondents.Structured interviews can also be used as a qualitative research methodology. These types of interviews are highly suited for engaging in respondent or focus group studies in which it would be beneficial to compare/contrast participant responses to answer a research question. For structured qualitative interviews, it is usually necessary for researchers to develop an interview schedule that lists the wording and sequencing of questions. Interview schedules are sometimes considered a means by which researchers can increase the reliability and credibility of research data.

Types of Interview

Interviews are categorized according to the purpose for which they are used and according to their design and structure. For purposes of research, an interview may be used as a tool for gathering data required by the researcher to test a hypothesis or to solve his/her problems of the historical, experimental, survey, or clinical type research. This type of interview is called a 'research interview'. In many situations, the objective of the interview is to secure information about the individual's problems, his/her history, and job or family adjustments. In such situations, the major purposes of interviews are diagnosis and treatment. This type of interview is called a *'clinical interview'*. It is employed by social workers and psychiatrists. Interviews may vary in design and structure. In some situations, an interviewer may interview one individual at a time. It is called an 'individual interview'. In a 'group interview', a group of individuals is interviewed at the same time. Interviews are also classified as 'structured' and 'unstructured'. A structured interview is one in which the whole situation is carefully structured and the major areas of inquiry are mapped out. Nevertheless, the interviewee is given considerable freedom to express his/her definition of the situation. In this type of interview, the interviewer uses a highly standardized tool and a set of pre-determined questions. 'Structured interview' is also designated as a 'directive interview'.

On the flip side, an unstructured interview toolabeled an 'uncontrolled', 'unguided', or 'non-directive' interview is one where the interviewer does not follow a list of predetermined questions. The interviewees are encouraged to relate their concrete experiences with no or little direction from the interviewer, to dwell on whatever events seem significant to them, to provide their definition of their social situations, and reveal their opinions and views as they like. Although the series of questions to be asked and the procedure to be followed is decided beforehand, the interviewer is largely free to arrange the form and timing of the questions. Interviewerscan rearticulate the questions, modify them and add new questions to the list.

Guidelines and the Techniques of Interviewing

In case you've ever seen an awesome interviewer in action, you will have the impression that it's simpler than it truly is. Do not let that mixed-up suspicion take off you ill-equipped! It can be very difficult to ask the right questions in the right way so that you simply get the answers you would like. AnthropologistBronisławMalinowski (1922) said that a genuine researcher should go see what is going on among the people. Malinowski seems realistic in the circumstances when the researcher must play the role of an interviewer and take a sound interview by establishing a good rapport with the people.Hence for

a good interview, while developing structured questions interviews, certain guidelines and techniques need to be followed so that to ensure that respondents provide information that is useful and can afterward be examined and analyzed. The guidelines are:

- Mainor key Preparation
- Instructions to Respondents
- Questions Content
- The wording of the Questions
- Order of the Questions

Guidelines are to be kept in mind and the interviewer needs to be guided by these guidelines. Likewise, before the interviewer starts to design his structured interview questions schedule, he needs to clearly express what problem or need is to be addressed using the information to be gathered by the questions. He needs to review why he is doing the evaluation and what he expects to accomplish by it. This provides focus on what information he needs and, ultimately, on what questions should be used. It ought to be noted that although the interview as a research tool can be modified according to the needs of the research situation, beyond the guidelines certain techniques need to be understood. These techniques deal with preparation for the interview, conducting the interview, and recording the information gathered. The techniques are as follows:

1. Homework or Preparation for the Interview

First of all, it is necessary to plan carefully for an interview. The interviewer must decide exactly what kind of data the interview should yield, whether the structured or unstructured type of interview will be more useful and how the results of the interview should be recorded. The interviewer should try out or pre-test the interview on some persons before using it for actual investigation. This will help reveal the deficiencies or shortcomings that need to be corrected before the actual interview is carried out. The interviewer must have a clear idea of the sort of information he/she needs, and *how!*

2. Tools for Research

The interviewer should arrange a list of questions in the form of a *schedule*. An interview schedule is a device consisting of a set of questions, which are asked and filled in by an interviewer in a face-to-face situation with the interviewee. Since it is administered personally, it provides the researcher an opportunity to establish a relationship, that is, rapport with the respondents. This helps the researcher to explain the nature and purpose of the investigation and to make the

meaning of the questions clear to the respondents in case they misinterpret a question or give incomplete or indefinite responses. The schedule also economizes the time and expenses of investigation. The procedure of constructing a schedule is the same as that of a questionnaire.

3. Conducting Interview

Make sure you are prepared. Of all, a harmonious relationship between the interviewer and interviewee is the most essential task in conducting an interview. A good rapport helps the interviewee to feel at ease and thus can express themselveswillingly. To set up a great rapport, the interviewer should greet the interviewee in a graceful, friendly, or inviting manner to get settled in a relaxed manner. The interviewer should possess special personality qualities such as a *cool mind, warm heart, and deep breath* that are indispensable for a successful interview. As a good interviewer in the field, the researcher should observe the following rules to bring forth effective responses:

- The interviewer should be very attentive and should ask only one question at a time.
- Should speak less and listen more to the respondent.
- Say again, that is, replicate or repeat a question if necessary.
- Attempt to ensure that the interviewee understands the questions.
- Listen watchfully or vigilantly to the interviewee's response.
- Observe the interviewee’s facial expressions, gestures, and tone of voice to derive meanings from his/her body language.
- Allow the interviewee sufficient time to answer the question, but do not let the interview drag on and on.
- Kept the interview on track and don’t let the interview off track and objectives.
- Use tact and skill in getting the subject back to an area of inquiry if the respondent has wandered away too far from the original question.
- Keep total vigilance on the progress of the interview.
- Keep away from irrelevant suggesting answers to questions.
- Avoid emotion, and temper, and be normal throughout the interview.
- Do not show signs of surprise, shock, anger, or other emotions if unexpected answers are given.
- Take note of answers that seem to be unclear, vague, ambiguous, or complex.
- Keep up a neutral attitude toward controversial issues during the interview.
- In the unstructured interview, ask additional questions to follow up on clues or to obtain additional information.

- Should attempt to redirect the interview to more fruitful topics when he/she feels that the required information is not sufficient.
- The interviewer should wind up the interview before the interviewee becomes tired.
- Should bid thankfulness and appreciation to the respondent and depart.

4. Recording of the Interview

The recording of the interview is a necessary step in interviewing because the interviewer needs information for his/her research. The interviewer may use a schedule, a structured format, a rating scale, or a tape recorder to record the responses of the interviewee. The use of a cellphone recorder/camera or conventional tape recorder during the conduct of the interview not only removes the lapses, omissions, uncertainty, ambiguity, distortions, elaborations, and other modifications of data usually found in written interview responses but also provides an objective basis for evaluating the adequacy of the interview data concerning the performance of the interviewee. It is the use of a cellphone recorder or taperecorder that allow the interviewer to dedicate full attention to the interviewee and save much of the time that he/she would otherwise use in writing down the responses during or after the interview. However, if a taperecorder or cellphone recorder is not available, the interviewer has to take notes to record the responses. However, note-making is a difficult task and high chances prevail that the interviewer can forget many vital points and issues of information provided by the interviewee.

The Efficacy of Structured Interview

From an interactionist's perspective, an interview provides very vital data necessary for successfully conducting a research study. An interview is not an entirely independent tool of research for gathering information about feelings, attitudes, or emotions. It is supplementary to other tools and techniques. A combination of interviews, observations, and statistical techniques often yields the best results, but the balance of emphasis shifts with the frame of reference and objectives of the study. The uses of an interview are multifarious. The utilityof a structured interview is that it generates data which is the raw material of research. The points underneath portray the utilities of a structured interview:

a. A structured interview provides an opportunity for the interviewer to ask questions on various areas of inquiry. It permits greater depth in responses which is not possible through any other means.
b. Questions can be clarified for the respondent, and an interview is guaranteed to be satisfactorily completed and returned whereas a questionnaire may not.

c. A structured interview is a guided technique where strict vigilance is maintained on questions in a structured way. It is anexceedingly flexible tool in the hands of skillful interviewers; it allows a more liberal atmosphere than in the use of other techniques of investigation. Questions are not readily grasped by interviewees but can be rephrased or repeated with proper emphasis and explanations when necessary.
d. An interview is an effective tool for a social scientist in the study of human behavior. Through this technique, a researcher can secure very intimate and personal knowledge about the subject of his/her study, which is denied to the natural scientist, who cannot communicate with the subjects despite all precision of the instruments.

Constraints of the Structured Interview

Despite many uses of the structured interview, it is not without limitations that put at risk its value, even when it is used as a complementary research technique. The impediments of structured interviews incorporate: The interviewer is required to plan more in advance. The questions require improvement, review, and testing to approve, actualize and implement. The pre-planned set of questions is at risk of being uncovered/revealed, which can help interviewers diversion from the crucial questions.
For example:

a. In a structured interview, the presence of the interviewer in the interview process creates many advantages and disadvantages when compared to questionnaires. But the presence of the interviewer can also be a major disadvantage in that the respondent may feel more restricted in their answers, particularly if their social characteristics are markedly different from that of the interviewer.
b. A structured interview is a far more time-consuming process than a questionnaire.
c. The effectiveness of a structured interview depends greatly upon the skill of the interviewer which everyone does not ordinarily possess. It takes time to master this skill.
d. There is a constant danger of subjectivity on the part of the interviewer.
e. An interview is very difficult to employ successfully because even in the presence of a skilled interviewer some interviewees do not respond freely, frankly, and accurately.
f. Since memory and retention are highly selective processes, interviewees generally provide accurate and vivid accounts of the most recent or intense experiences or situations that they encounter most frequently. Painful or embarrassing experiences are forgotten or consciously avoided

by the interviewees. In such cases, the responses lack accuracy or are twisted.

g. If a recording facility is not available, the interviewer has to take notes to record the responses. Nevertheless, note-making is a delicate task and the interviewer can go off track and forget much crucial information.
h. As all questions are predesigned it may not be possible to go out of track and raise relevant and necessary questions. This may cause a lack of required data for research.

5.4Counting and Measuring: Content Analysis as a Technique

As a tactical methodology, content analysis can be both quantitative e.g. focused on counting and measuring, and qualitative e.g. focusing on interpreting and understanding. In both types, we categorize or 'code' words, themes, and concepts within the texts and then analyze the results. But, it is an extensively used qualitative research technique. Rather than being a single method, applications of content analysis show three distinct approaches viz. conventional, directed, or summative. It was Alfred Lindesmith who developed a methodology to disprove existing hypotheses in1931, which became known as a *content analysis technique*, and it gained popularity in the 1960s by Glaser and is referred to as *The Constant Comparative Method of Qualitative Analysis* in an article published in 1964-65. Glaser and Strauss (1967) referred to their adaptation of it as *Grounded Theory*. Content analysis is a commonly used method in social sciences. The technique of content analysis is almost completely concerned with the study of mass media where it has become one of the most successful methods in use. This can include analyses that take specific types of media such as television, or newspaper, and examine how a particular group such as women or ethnic minorities is represented. This may be simple as counting how many times a group or type is referred to. It can also investigate specific themes, such as strike or war, looking to see what messages are encoded within these representations. The language used in mass media has been of particular interest in content analyses.

As an attempt made to convert symbolic behavior into scientific data, content analysis is a method of analysis of data. Kerlinger (1986) has defined content analysis as a method for studying and analyzing communications in a systematic, objective, and quantitative manner to measure variables. Berelson (1952) defines content analysis as a research technique for the objective, systematic, and quantitative description of the manifest content of communications. Holsti (1969) offers a broad definition of content analysis as any technique for making inferences by objectively and systematically

identifying specified characteristics of messages.Neuendorf (2017) offers a six-part definition of content analysis:

Content analysis is a summarizing, quantitative analysis of messages that relies on the scientific method (including attention to objectivity, inter-subjectivity, a priori design, reliability, validity, generalizability, replicability, and hypothesis testing) and is not limited to the types of variables that may be measured or the context in which the messages are created or presented.

In broad-spectrum, content analysis is a research technique for the objective, orderly and qualitative description of the manifest content of the communication. It is a methodology in the social sciences for studying the content of the communication. Babbie (1989) defines content analysis as the study of recorded human communications, such as books, websites, paintings, and laws. It is most commonly used by researchers in the social sciences to analyze recorded transcripts of interviews with participants. As a method content analysis is meticulously related if not overlapping kind often included under the general rubric of qualitative analysis and used mainly in the social sciences. It is a methodical, replicable technique for compressing many words of text into fewer content categories based on explicit rules of coding.

Focused on the actual content and internal highlights of media, content analysis is a research tool. It is utilized to determine the presence of certain words, concepts, themes, phrases, characters, or sentences inside texts or sets of texts and to quantify this presence impartially. Texts can be characterized broadly as books, book chapters, essays, interviews, discussions, daily paper headlines and articles, historical archives, speeches, conversations, advertising, theater, informal conversation, or any occurrence of communicative language. As a method of research, content analysis or *substance examination* is a product of the electronic age. Indeed, even though content analysis was frequently used within the 1940s, it got to be a more credible and habitually utilized research method within the mid-1950s with the investigator beginning to center on concepts instead of simply words and semantic connections rather than just presence. In any case, it was Harold Lasswell (1942) who formulated the core questions of content analysis:

- *Who says what?*
- *to whom?*
- *why, to what extent, and with what effect?*

The technique of content analysis enables the researcher to include large amounts of textual information and systematically identify its properties, e.g. the frequencies of most used keywords by locating the more important structures of

its communication content. Yet such amounts of textual information must be categorized analysis, providing in the end a meaningful reading of content under scrutiny. Since the 1980s, content analysis has become an increasingly important tool in the measurement of success in public relations (notably media relations) programs and the assessment of media profiles. In these circumstances, content analysis is an element of media evaluation or media analysis. In analyses of this type, data from the content analysis is usually combined with media data (circulation, readership, number of viewers and listeners, frequency of publication). It has also been used by futurists to identify trends. As an evaluation approach, content analysis is considered to be quasi-evaluation because content analysis judgments need not be based on value statements if the research objective is aimed at presenting subjective experiences. Hence, they can be based on knowledge of ordinary lived encounters and experiences. Such content analyses are not evaluations. On the other hand, when content analysis judgments are based on values, such studies are evaluations or assessments.

Aims of Content Analysis

Content analysis helps in the conversion of qualitative data into scientific form. It helps in creating objectives susceptible to measurement and quantitative treatment. It should have some significance for some systematic theory and maybe capable of generalization. Kerlinger (1986) has said that one of the most important characteristics of content analysis is its general applicability, especially now that the use and availability of computers make their applications much easier.

Uses of Content Analysis

Content analysis is very functional in numerous sectors. It is used in different fields, ranging from media studies and marketing to literature and rhetoric, ethnography and cultural studies, gender and age issues, sociology and political science, anthropology, psychology, and cognitive science, as well as other fields of inquiry. Additionally, the content analysis reflects a close relationship with socio-and psycholinguistics and is playing an integral role in the development of artificial intelligence. During the Second World War, American anthropologists Ruth Benedict and Margaret Mead used the content analysis method for the study of Japanese people and their National Character after they received an invitation from the U.S. Office of War Information to understand and predict the behavior of the Japanese in World War II by reference to a series of contradictions in traditional culture. During the war period, it was not conceivable to visit Japan for researching Japanese culture. Subsequently, they utilized a content analysis strategy for the study of Japanese individuals, their attitudes, National Character, etc.Following the tradition of National Character,

Ruth Benedict and Mead studied the Japanese National Character and wrote *Chrysanthemum and the Sword*in 1946. Although severely criticized, the book was influential in shaping American ideas about Japanese culture during the occupation of Japan and popularized the distinction between guilt cultures and shame cultures.

The extensive use of content analysis helped them in collecting rigorous data related to Japanese people, especially their culture, attitude, tradition, and lifestyle. They took the help of different media of the then period, books, etc., and had the comparative study of different media, the depiction of Japanese culture, and people's lifestyles in diverse media. They claimed that the methods of content analysis are suitable only for qualitative study and difficult in the study of large, modern complex societies. Consequently, it can be said that content analysis may not be the solution to all the queries and complications related to a qualitative study. Nevertheless, content analysis helps in the classifications and organization of unorganized data and gives that scientific shape. It helps in studying scientific trends and changes that take place in a particular period on the one hand and trends of communication on the other. Regarding the uses of content analysis, well-known research scholar Berelson (1952) suggests more possibilities for the uses of content analysis:

a. Reveal international differences in communication content.
b. Detect the existence of propaganda.
c. Identify the intentions, focus, or communication trends of an individual, group, or institution.
d. Describe attitudinal and behavioral responses to communications.
e. Determine the psychological or emotional state of persons or groups

Related to the uses of content analysis, it needs to be kept in intellect that content analysis depicts trends. With the various levels of comparisons of communications, content analysis helps in the study of various propaganda techniques that are responsible for attracting people. It also helps in determining the psychological state of various groups and the personalities of members of those groups. As a scientific method in social research, content analysis helps in testing the research hypothesis. Likewise, its other uses are:

a. Looks directly at communication via texts or transcripts, and consequently gets at the central aspect of social interaction.
b. Can allow for both quantitative and qualitative operations.
c. Can offers valuable historical/cultural visions over time through analysis of texts

d. Allows closeness to text content which can alternate between particular categories and relationships and also statistically evaluates the coded shape of the text content.
e. Can be used to interpret texts for drives such as the development of expert systems (since knowledge and rules can both be coded in terms of explicit statements about the relationships among concepts)
f. Is an unobtrusive or simple means of analyzing interactions
g. Provides insight into complex models of human thought and language use
h. When done well, is considered a relatively "exact" research method (based on hard facts, as opposed to Discourse Analysis).

Content analysis is a broadly used research technique. For Berelson (1952), content analysis is the technique for the objective, systematic and quantitative depiction of the manifest content of the communication. Instead of being a single method, current applications of content analysis show distinct approaches. Citing Berelson (1952), Ole Holsti (1969) groups fifteen usages of content analysis into three basic categories:

- make inferences about the antecedents of a communication
- describe and make inferences about the characteristics of a communication
- make inferences about the effects of communication.

Both of them place these uses into the context of the basic communication paradigm.The table given below illustrates fifteen uses of content analysis in terms of their broad-spectrum purpose, the element of the communication paradigm to which they apply, and the general question they are intended to answer.

Table 5.3: **Uses of Content Analysis in their Broad-spectrum Purpose**

Uses of Content Analysis by Purpose, Communication Element, and Question			
Purpose	**Element**	**Question**	**Use**
Make inferences	Source	Who?	• Answer questions of disputed authorship (authorship analysis)

about the antecedents of communications	Encoding process	Why?	• Secure political & military intelligence • Analyze traits of individuals • Infer cultural aspects & change • Provide legal & evaluative evidence
Describe & make inferences about the characteristics of communications	Channel	How?	• Analyze techniques of persuasion • Analyze style
	Message	What?	• Describe trends in communication content • Relate known characteristics of sources to messages they produce • Compare communication content to standards
	Recipient	To whom?	• Relate known characteristics of audiences to messages produced for them • Describe patterns of communication
Make inferences about the consequences of communications	Decoding process	With what effect?	• Measure readability • Analyze the flow of information • Assess responses to communications

Berelson (1952) and adapted by Holsti (1969).

Beyond the functional uses, there are certain disadvantages of content analysis. For instance, the initial coding of the writings of the text is vital in building up the categories to be analyzed. If the coding is wrong at that point the findings are invalid. The analyst can ignore the context that which the words are used in.

Flaws of Content Analysis

There are diverse weaknesses (disadvantages) of content analysis-both theoretical and procedural. In particular, content analysis:

a. is not considered a substantial (valid) method on its own for complex printed textual analysis.

b. is subject to increased error, particularly when a relational analysis is used to attain a higher level of interpretation.
c. can be exceedingly time-consuming.
d. is inherently reductive, particularly when dealing with complex texts.
e. tends too often to simply consist of word counts.
f. is often devoid of a theoretical base, or attempts too liberally to draw meaningful inferences about the relationships and impacts implied in a study.
g. often disregards the context that produced the text, as well as the state of things after the text is produced.
h. can be difficult to automate or computerize.
i. manual coding is traditional and outdated.

Units of Content Analysis

The method of content analysis is almost exclusively restricted to the study of the mass media where it has become one of the most successful methods in use. Likewise, there are five units of content analysis namely, *words, themes, characters, items,* and *space and time measures.* The *words*are the smallest unit and easy to work with, especially in computer content analysis. The words can simply be counted and assigned to appropriate categories. Next comes the *Theme* which is the more difficult unit. The theme is often a sentence, a proposition about something. The themes are joined into sets of themes. If the themes are complex, content analysis using the theme as the unit of analysis is difficult and perhaps unreliable. The *Characters* and *Space and time measures* have not been found very useful and reliable. Similar to the theme, the item-unit is important. Raj (2002) has rightly remarked that it is the whole production like an essay, news story, television program, or class recitation of discussion. A careful check on reliability and validity, however, is a must. In this regards Kerlinger (1986) has said that "As long as pertinent criteria for categorizing a variable can be defined, and as long as judges can agree substantially on their ratings, ranking or assignments, then the item-unit is profitable to use".

Stages of Content Analysis

Content analysis is a widely used qualitative research technique. Rather than being a single method, current applications of content analysis show distinct approaches. Text selection, sampling, categorizing, and coding are the major stages of content analysis. In detail we can present the stages of content analysis as follows:

- *Text selection*: Texts should be relevant to the purpose athand. They should be available. Their time and space dimensions have to be laid down.
- *Sampling*: In the case of many texts, apart thereof is studied in the hope that the part is true of the whole. Let's take one example, suppose a researcher wants to study headlines about *elderly people and ageism* appearing in Nepali newspapers from 1990 onwards. It is not necessary to take note of each headline in the numerous newspapers published all over Nepal. For this, the country can be divided into 7 provinces and one newspaper is selected randomly from these zones. The particular issues of each newspaper are selected and analyzed scientifically.
- *Categorizing*: Before analyzing texts, words are reduced into a few categories. These categories are statistically treated to find out their magnitudes and the extent of their relationships. The reduced data are used for constructing theories.While preparing categories for bringing words under common names, it is necessary to ensure that they are mutually exclusive and collectively exhaustive. They should be independent of each other. They should be constructed on the same fundamental principle of classification reflecting the purpose of the study.
- *Coding*: It can be either manual (done by hand) or by computer. Manual coding is done if the researcher has no access to a computer. Various categories are given code numbers. Such quantification facilitates dataprocessing and analysis. For total reliability in a modern and scientific way, a computer can be used. Computers are used extensively in coding in the present modern time.

Process of Content Analysis

Content analysis is an important method in social science research. This commonly used method in social sciences content analysis is wholly concerned with the study of mass media where it has become one of the most flourishing methods in use. Specific types of media such as newspapers, television, etc., and examining how a particular group such as women or ethnic minorities is represented is the analytical procedure of content analysis. Krippendorff (1980) articulates that, six questions must be addressed in every content analysis:

1. Which data are scrutinized?
2. How are they explained?
3. What is the population from which they are drawn?
4. What is the background relative to which the data are analyzed?
5. What are the borders of the analysis?
6. What is the target of the inferences?

The assumption is that words and phrases mentioned most often are those reflecting important concerns in every communication. Therefore, the quantitative content analysis starts with word frequencies, space measurements (column centimeters/inches in the case of newspapers), time counts (for radio and television time), and keyword frequencies. It is quite significant that qualitatively; content analysis can engage in any kind of analysis where communication content (speech, written text, interviews, images,etc.) is categorized and classified. Analysis was done manually by measuring the number of lines and amount of space given to a subject in newspapers in the nineteenth and early twentieth century. In the mid-twentieth century televisions and other electronic media became very crucial for content analysis. With the rise of common computing facilities, computer-based methods of analysis are growing in popularity. Answers to open-ended questions, newspaper articles, political party manifestoes, medical records, or systematic observations in experiments can all be subject to a systematic analysis of textual data. By having contents of the communication available in form of machine-readable texts, the input is analyzed for frequencies and coded into categories for building up inferences.

Weber (1990) asserts that to make valid inferences from the text, it is important that the classification procedure be reliable in the sense of being consistent and diverse people should code the same text in the same way. Krippendorff (2004) says that the validity, inter-coder reliability, and intra-coder reliability are subject to intense methodological research efforts over long years. Another imperative aspect is that one more difference is between the manifest contents (of communication) and its latent meaning. *Manifest* describes what (an author or speaker) has written, while *latent* meaning describes what an author intended to say/write. Normally, content analysis can only be applied to manifest content; that is, the words, sentences, or texts themselves, rather than their meanings. McKeone (1995) has stressed the difference between prescriptive analysis and open analysis. In prescriptive analysis, the context is a closely-defined set of communication parameters (e.g. specific messages, subject matter); open analysis identifies the dominant messages and subject matter within the text.

Issues of Reliability and Validity in Content Analysis

In content analysis, the issues of reliability and validity are simultaneous with those addressed in research methods. The reliability of a content analysis study denotes its *stability*, or the tendency for coders to consistently re-code the same data in the same way over some time; reproducibility, or the tendency for a group of coders to classify categories membership in the same way; and accuracy, or the extent to which the classification of facts corresponds to a standard or norm statistically. The validity of a content analysis study refers to

its soundness, that is, the strength of inferences or propositions for the best available approximation to the truth or falsity of a given inference, proposition, or conclusion and the issues of whether the researcher is measuring what he/she says.

Types of Content Analysis

Although the types of content analysis vary, there are two general categories of content analysis that are relevant to mention. They are:

- Conceptual analysis and
- Relational analysis

Conceptual Analysis

In the general context, *conceptual analysis* can be thought of as establishing the existence and frequency of concepts in a text. Conventionally, content analysis has most often been thought of in terms of conceptual analysis. In conceptual analysis, a concept is chosen for examination and the number of its occurrences within the text is recorded. For the reason that terms may be implicit as well as explicit, it is important to clearly define implicit terms before the beginning of the counting process. The conceptual analysis starts with recognizing research questions same as most other research methods by choosing a sample or samples. In conceptual analysis, the researcher justwishes to examine the presence concerning his/her research question, i.e. whether there is a stronger presence of positive or negative words used concerning a specific argument or respective arguments.

Relational Analysis

The relational analysis builds on conceptual analysis by inspecting the relationships among concepts in research. It is put up on conjectural analysis by analyzing the relationships among concepts in research. And as with other sorts of inquiry, primary choices concerning what is being studied and/or coded for often determine the possibilities of that particular study. It is significant in relational analysis, to first decide which concept type(s) will be explored in the analysis. It is essential to authorize the context and necessities of research to guide the coding procedures. It is to be noted that at present there are many techniques of relational analysis available and this flexibility makes for its popularity. Likewise, researchers can work out their procedures according to the nature of their project. Once a procedure is thoroughly tested, it can be made practical, applied, and compared across populaces over time. At present, the

process of relational analysis has accomplished a high grade of computer automation but still is, like most forms of research, time-consuming. Yet, it maintains a high degree of statistical strictness without losing the richness of detailed evidence in qualitative methods.

5.5 Boundaries and Restraints of Quantitative Tools and Techniques

A quantitative method is a systematic approach to investigations during which numerical data is collected and/or the researcher transforms what is collected or observed into numerical data. It often defines a situation or event; answering *what* and *how many* questions the researcher may have about something. This is research thatincludes measuring or counting attributes (i.e. quantities).A quantitative approach is often concerned with finding evidence to either support or contradicts an idea or hypothesis a researcher might have. A hypothesis is where a predicted answer to a research question is suggested. Most often when a researcher is fascinatedby hypothesis testing they will *experiment* to gather their data. All research ultimately has a qualitative grounding. A researcher may only know roughly in advance what he/she is looking for. The goal is a complete, detailed description. Qualitative research involves the analysis of data such as words (e.g., from interviews), pictures, or objects (e.g., an artifact). Likewise, subjective interpretation of events is important, e.g., using participant observation, in-depth interviews, etc. The researcher tends to become subjectively immersed in the subject matter. Qualitative data is richer, time-consuming, and less able to be generalized.
However, according to Kerlinger (1986),there's no such thing as qualitative data. Everything is either "1 or 0". The aim is quantitative data, to classify features, count them, and construct statistical models in an attempt to explain what is observed. The researcher knows clearly in advance what he/she is looking for. All aspects of the study are carefully designed before data is collected. The researcher uses tools, such as questionnaires or equipment to collect numerical data. In a quantitative method, data is in the arrangement of numbers and statistics. Objective seeks precise measurement and analysis of target concepts, e.g., uses surveys, questionnaires, etc. Quantitative data is more efficient, and able to test hypotheses but may miss contextual detail. The researcher tends to remain objectively separated from the subject matter. Quantitative research involves the analysis of numerical data.

The strengths and weaknesses of qualitative and quantitative research tools and techniques are a permanent, burning debate, especially in the social sciences. The issues raise classic paradigm war. The personality and judgment style of the researcher and/or the culture of the organization are under-

recognized as key factors in the desired choice of methods. Focusing on the debate of *qualitative versus quantitative* frames, it is imperative to focus also on how the techniques can be integrated, such as in mixed methods research. More good can come of social science researchers developing skills in both realms than debating which method is superior.

In the social sciences, quantitative research is concerned with the systematic empirical investigation of quantitative properties and phenomena and their relationships. The objective of quantitative research is to develop and employ mathematical models, theories, and/or hypothesesabout phenomena. The process of measurement is central to quantitative research because it provides the fundamental connection between empiricalobservation and the mathematical expression of quantitative relationships. Quantitative research is often contrasted with qualitative research which is the examination, analysis, and interpretation of observations to discover underlying meanings and patterns of relationships, including classifications of types of phenomena and entities, in a manner that does not involve mathematical models. Although a distinction is commonly drawn between qualitative and quantitative aspects of scientific investigation, it has been argued that the two go hand in hand. For instance, based on an analysis of the history of science, Kuhn (1957) concludes that large amounts of qualitative work have usually been a prerequisite to fruitful quantification in the physical sciences.

Quantitative research using statistical methods starts with the collection of data, based on the hypothesis or theory. Usually, a big sample of data is collected - this would require verification, validation, and recording before the analysis can take place. A fundamental principle in quantitative research is that correlation does not involve causation. This principle follows from the reality that it is always possible that a spurious relationship exists for variables between which covariance is found to some degree. Associations may be examined between any combination of continuous and categorical variables using methods of statistics.

Limitations

No doubt quantitative methods are more objective, the sturdy supporters of qualitative methods argue that quantitative methods, tools, and techniques tend to be difficult to understand the reality of the social phenomena under study because they underestimate or neglect the non-measurable factors, which may be the most important. The majority tendency throughout the history of social science and the modern inclinationis to use diverse approaches. Quantitative methods should be used with a qualitative frame. Qualitative methods might be used to understand the meaning of the numbers produced by quantitative methods. Using quantitative methods, it is possible to give precise and testable

expressions to qualitative ideas. This combination of quantitative and qualitative data gathering is called *mixed-methods* research.

Most researchers view quantitative research design as the best approach to scientific research because it offers accurate measurement and analysis. In quantitative research design, the researcher will count and classify, and build statistical models to then explain what is observed. Data collected using this research approach is in the form of numbers and statistics. Quantitative research then results in precise measurements. However, there are different limitations the quantitative as well as qualitative research in that they do not always strengthen understanding of multi-dimensional pictures. The limitations to the quantitative tools and techniques are that researchers cannot appeal to a larger audience. More people are willing to sit down and discuss their opinions rather than go through an actual testing demonstration. The disadvantage to this is that the researcher may have a more biased group. He isn't learning by trial and error. The limitations are that researcher has some people who are going to be dishonest while doing this, rather than doing a survey. The researcher sees people's reactions and that may spark some more ideas for the product. The downfall to this is that some people may become hesitant and the researcher's quantitative statistics may become flawed.

The quantitative research method gathers a much tighter and sometimes shallow dataset and the results are partial as they provide numerical descriptions rather than detailed accounts and generally provide less elaborate accounts of human perception. The research is often carried out in an unnatural, artificial environment so that a level of control can be applied to the exercise. This level of control might not normally be in place in the real world yielding laboratory results as opposed to real-world results. In addition, preset answers will not necessarily reflect how people feel about a subject and in some cases might just be the closest match. Likewise, the development of standard questions by researchers can lead to structural' bias and false representation, where the data reflects their view of them instead of the participating subject.

Amid the different limitations of quantitative tools and techniques, it can be said that quantitative although regarded as scientific are feasible to imperfection. In quantitative research a sample is expected to mirror the population from which it comes; nonetheless, there is no guarantee that any sample will be specifically representative of the population from which it comes. The chance may dictate that a disproportionate number of untypical observations will be made for the case of testing fuses, the sample of fuses may consist of more or less defective fuses than the real population proportion of faulty cases. So, in an application, it is rarely known when a sample is unrepresentative and should be rejected. The vital question is what can make a sample unrepresentative of its population? One

of the most frequent causes is sampling error. Sampling error comprises the differences between the sample and the population that are due solely to the particular units that happen to have been selected. Society is diverse and likewise, personalities differ, no two interviewers are alike and the same person may provide different answers to different interviewers. How a question is formulated can also result in inaccurate responses. Individuals tend to provide false answers to particular questions.

There may be situations when respondents might give wrong answers to impress the interviewer. This type of error is the most difficult to prevent because it results from outright deceit on the part of the respondent. The personal prejudices of either the researcher of the study or the data collector may be likely to induce (persuade) prejudice. In designing a questionnaire, questions may be biased in such a way that a particular reaction will be obtained even though it is inaccurate. As a prevention to guard against induced bias, the suggestion of a person being trained in statistics is supposed to be taken in the design, and somebody in addition conscious of search danger(danger) should serve in an auditing capacity.

Surveys one of the prime quantitative methods are rigid and inflexible in that it necessitates the initial study design (the tool and administration of the tool) to remain unchanged throughout the data collection. Surveys are based on a methodology relying on standardization that forces the researcher to develop questions general enough to be minimally suitable for all respondents, possibly missing what is most appropriate to many respondents. In survey studies, it may be hard for participants to recall information or to tell the truth about a controversial question. As conflicting to direct observation, survey research (excluding some interview approaches) can hardly ever deal with real context.

In quantitative research, it is vital to consider whether the socio-metric scale can become a refined instrument and what degree of reliability and validity can be attained so far as qualitative data is concerned. The major problem is whether it is possible to translate qualitative data into quantitative terms. The key question is what is meant by *a measuring instrument being valid, reliable, and precise*? A measuring instrument is valid to the extent it measures, what is desired to be measured. It is said that a measuring procedure is valid to the extent to which scores reflect differences among individuals, groups, or situations in the characteristics it seeks to measure.Questionnaires, although can be classified as both quantitative and qualitative methods depending on the nature of the questions, there are various downsides. In a questionnaire, the quality of data is related to the quality of the survey. The questionnaire requires that respondents must have the perusing and composing capacity to get it and total the address. For this reason, it is futile within the setting of uneducated and less-taught

individuals. The organization of the questionnaire design makes it troublesome for the analyst to look at multifaceted issues and opinions. Indeed, where open-ended questions are used, the depth of answers that the respondent can give tends to be more restricted than with almost any other method of research. This also makes it troublesome for a researcher to gather the information that is rich in depth and detail.

From an interactionist perspective, the main problem with the questionnaire is that they lack validity. Although respondents may answer a question, in the same way, the meaning they give to that answer may differ according to the way they have understood and interpreted the question. For example, what may be crucial for the researcher may not be of the same importance to the respondents. A very small part of the respondents' view of the world is discovered, and the researcher gains little or no first-hand experience of the world view of others, or how they interact with those around them. As a final point, completing a questionnaire does little to involve or empower the respondent in the whole process of research.The questionnaire over and over again needs a follow-up interview or observation. Similarly, it may be difficult to construct a questionnaire and may have a low response rate, responses may be incomplete. Equally, responses may be difficult to interpret (open-ended). With a postal questionnaire, the researcher can never be certain the person to whom the questionnaire is sent fills it in. For example, if the research is concerned with findingout the opinions of women on a range of issues, it would be less than useful if an unknown number of the questionnaires sent by the researcher were filledin by men. Where there is no direct presence of the researcher, it's always problematic to know whether or not a respondent has understood a question properly. The researcher has to assume the questions asked to mean the same to all the respondents as they do to the researcher. The reply rate called response rate (that is, the number of questionnaires that are returned to the researcher) tends to be very little for postal questionnaires.

The problem of the self-selecting sample is principally evident concerning questionnaires. When a response rate is very low the responses received may only be the opinions of a very tremendouslydriven section of the sample (that is, people with strong opinions who take the time and trouble to complete and return a questionnaire).Questionnaires, in the main, are usually low concerning the degree of validity because they do not explore questions in any detail or depth. Complex issues which require a respondent to explain their reasons for believing something are difficult to explore using this method. Where closed questions are used the respondent is restricted to answering questions using the categories provided by the researcher - there is little or no scope for the respondent to qualify the meaning of their answers. The questions asked are, by definition, those considered important by the researcher. It is easy, therefore, to

fail to notice important information because the researcher may fail to ask suitable questions.

Despite many uses of the structured interview, it is not without limitations that put at risk its value, even when it is used as a complementary research technique. In a structured interview, the presence of the interviewer in the interview process creates many disadvantages when compared to questionnaires. The presence of the interviewer can also be a major disadvantage in that the respondent may feel more restricted in their answers, particularly if their social characteristics are markedly different from the interviewer. An interview is a far more time-consuming process than a questionnaire. The effectiveness of the interview depends greatly upon the skill of the interviewer which everyone does not ordinarily possess. It takes time to master this skill. There is a constant danger of subjectivity on the part of the interviewer. An interview is very difficult to employ successfully because even in the presence of a skilled interviewer some interviewees do not respond freely, frankly, and accurately. In many contexts, painful or uncomfortable experiences are forgotten or consciously avoided by the interviewees. In such cases, the interview responses lack accuracy. If a recording facility is not available, the interviewer has to take notes to record the responses. Note-making is a tricky task and the interviewer can go off track and forget vital information.

Content analysis suffers from several advantages, both theoretical and procedural. It can be time-consuming and is subject to increased error, particularly when the relational analysis is used to attain a higher level of interpretation. It is often devoid of a theoretical base or attempts too liberally to draw meaningful inferences about the relationships and impacts implied in a study. Content analysis is logically reductive, particularly when dealing with complex texts, and tends too often to simply consist of word counts and in the process often ignore the context that produced the text, as well as the state of things after the text is produced. These limitations of quantitative tools and techniques clarify that although regarded as scientific, they are viable to imperfection.

6

QUALITATIVE RESEARCH PROCESS AND METHODS: RESEARCHER AS *BRICOLEUR* AND *QUILT MAKER*

Qualitative research is grounded in a logical philosophical *(fundamental nature of knowledge, reality, and existence)* position, which is generally interpretive in the sense that it is apprehensive with how the social world is deciphered, translated, or understood, caught on (understood) and experienced, or created (produced). Qualitative analysts hunt for answers to their questions inside the veritable genuine world. They gather (assemble) what they see, tune in (listen), and read from the people and places and events (occasions) and activities---reason is to learn roughly a few points of the social world and to produce and deliver cutting-edge modern understandings that can be utilized by that social world. Any study is categorized as qualitative if the resolution of the study is primarily to define a situation, phenomenon, problem, or occurrence, and the information is collected through the use of variables measured on a nominal scale (good, better, satisfactory, poor, etc.), or ordinal scale (first, second, third, etc.) i.e. qualitative measurement scales; if the investigation is done to establish the variation in situation, phenomenon or problem without quantifying it. For instance, the description of an observed situation, the historical enumeration of events, and an account of different opinions people have about an issue.

Qualitative methods have their tools and procedures, qualities, and shortcoming. A well-known and accommodating categorization isolated qualitative methods into various bunches like narrative, ethnography, grounded theory, phenomenological, case study, etc. The major approaches of qualitative inquiry-*Phenomenological analysis, Grounded theory, Ethnographic approaches,* and *Historical methods approaches* areused extensively in anthropological research. The Phenomenological analysis focuses on lived encounters and experiences of a group. The objective of phenomenology is to ponder how individuals make meaning of their lived experience; discourse analysis analyzes how language is used to accomplish individual, social, and political projects; and Grounded Theory (GT) develops illustrative, explanatory theories of essential social processes studied in context. It is to be noted that Grounded Theory is a strategy developed in the discipline of sociology. The Grounded Theory method though interestingly suited to fieldwork and subjective information can be effectively used as a common method of analysis with any form of data collection: survey, experiment, or case study. The roots of Ethnography lie in cultural

anthropology, with its center on small-scale social orders and the original central concept remains vital nowadays; that's a concern with the nature, construction, and maintenance of culture. Ethnography is for the most part concerned with culture and power with the most forms of data by and large participatory observation and interviews. Ethnography investigates cultural issues and Grounded Theory explains thebehind an event. In case this strategy is triangulated with quantitative methods give strong facts. Phenomenology is a worldview or paradigm, ethnography is a domain of knowledge, and Grounded Theory (GT) is a method and its product of knowledge. So, researchers can approach a topic of ethnography (traditions, customs, conventions, values of ethnic groups) from a phenomenological perspective and can develop a GT on the preferred topic.

Another sort of qualitative research is historical research, which includes analyzing past events to draw conclusions and make predictions. The steps in historical research are: formulate an idea, formulate a plan, accumulate information, analyze information, and analyze the sources of information. Phenomenology, as both a philosophy and a methodology, has been applied in organizational and consumer research investigations to create an understanding of complex issues that may not be instantlyunderstood in surface responses. Ethnography as a systematic study is interlaced with numerous other social sciences such as anthropology, sociology, and history. Grounded Theory does not counsel literature that's specifically related to the research problem. The researcher simply picks up a wide understanding of the extent of the study. In Ethnography,attention is given specifically to literature concerning the problem. Phenomenology is deciphering and deciphering experiences whereby Grounded Theory extricates themes from the information. Choice of approaches, methods with their tools and techniques depends upon the purpose of research, discipline, and perspective:

- ❖ The purpose of the study
- ❖ How variables are measured?
- ❖ How information is analyzed?

These three interrelated, generic exercises characterize the qualitative research process. They go by an assortment of diverse labels, including theory, method, analysis; ontology, epistemology, and methodology. Behind these terms stands the individual biography of the analyst, who talks from a specific class, gendered, racial, cultural, and ethnic community point of view. The gendered, multi-culturally situated researcher approaches the world with a set of ideas, a system of frameworks (theory, ontology) that specifies a set of questions (epistemology), which are at that point examined (methodology, analysis) in specific ways. That's, observational empirical materials bearing on the question

are collected and after that analyzed and written about. Each researcher talks from within a distinct interpretive community, which designs, in its special way, the multicultural, gendered components of the research act.

The researcher and the researched are multicultural subjects, major paradigms, interpretive perspectives, research approaches, methods of collecting and analyzing empirical materials, and the art of interpretation. Behind and within each of these stages stands the biographically positioned researcher. This individual enters the research process from inside an interpretive community. This community has its historical research traditions, which constitute a separate point of view. This perspective leads the researcher to adopt particular views of the *other* who is studied. At the same time, the politics and the ethics of research must also be considered, for these concerns permeate every phase of the research process.

a. Confrontations to Qualitative Studies: The Researcher as *Bricoleur* and *Quilt Maker*

The academic and disciplinary conflicts to qualitative research embody the politics embedded in qualitative research discourse. The trialsof subjective qualitative research are numerous. To way better get these criticisms, it is vital tologically distinguish the political (or external) role of [qualitative] methodology from the procedural (or internal) one. Politics locate methodology within and exterior of the academy. Procedural issues define how qualitative methodology is used to produce knowledge about the world (Seale et al., 2004). Often, the political and the procedural intersect. Politicians and hard scientists call qualitative researchers *journalists* or "soft" scientists. Their work is termed unscientific, only exploratory, or subjective. It is called criticism and not theory, or it is taken politically, as a disguised version of Marxism or secular humanism (Denzin and Lincoln, 2005).

The political and procedural resistances reflect an uneasy awareness that the interpretive traditions of qualitative research commit one to a critique of the positivist or post-positivist project. But the positivist resistance to qualitative research goes beyond the "ever-present desire to maintain a distinction between hard science and soft scholarship" (Carey, 1989). The experimental (positivist) sciences (physics, chemistry, economics, and psychology, for illustration) are regularly seen as the crowning achievements of Western civilization, and in their practices, it is accepted that "truth" can transcend opinion and individual bias. Qualitative research is seen as an assault on this tradition, whose adherents often retreat into a "value-free objectivist science" (Carey, 1989) model to defend their position. The positivists seldom attempt to make explicit, and critique the "moral and political commitments in their contingent work".

It is the affirmation of the positivists that the so-called new experimental qualitative researchers make up fiction, not science, and have no way of verifying their true explanations. Ethnographic poetry and fiction signal the death of empirical science, and there's little to be gained by endeavoring to engage in ethical moral criticism. These critics presume a stable, fixed reality that can be studied with the empirical methods of objective social science (Huber, 1995). The province of qualitative research, accordingly, is the world of lived experience, for this is where individual belief and action intersect with culture. Under this model, there is no preoccupation with discourse and method as material interpretive practices that constitute representation and description. This is the documented, narrative turn rejected by the positivists. The opposition to positive science by the poststructuralists is seen, then, as an attack on reason and truth. At the same time, the positivist science attack on qualitative research is regarded as an attempt to legislate one version of truth over another.

The sequential waves of epistemological theorizing move over different moments. The traditional period is related to the positivist, foundational paradigm. The modernist or golden age and blurred genre moments are associated with the appearance of post-positivist arguments. At the same time, an assortment of new interpretive, and qualitative perspectives was taken up, including hermeneutics, structuralism, semiotics, phenomenology, cultural studies, and woman's rights (feminism). In the blurred genre phase, the humanities got to be central assets for critical, interpretive theory and the qualitative research project broadly conceived. The researcher got to be a bricoleur, learning how to borrow from numerous diverse disciplines. The hazy genres phase produced the next stage, the crisis of representation. Here researchers struggled with how to locate themselves and their subjects in reflexive writing.Qualitative research implies diverse things in each of these moments. In any case, an introductory, generic definition can be offered. Qualitative research is a situated activity that locates the observer within the world. Qualitative research comprises a set of interpretive, material practices that make the world visible. These practices change the world. They turn the world into a series of representations, including field notes, interviews, conversations, photos, recordings, and memos to the self. At this level, qualitative research involves an interpretive, naturalistic approach to the world. This means that qualitative researchers think through things in their common natural settings, endeavoring to make sense of or decipher (interpret) phenomena in terms of the implications individuals and people bring to them.

Qualitative research includes the studied use and group of an assortment of empirical materials—case studies, personal knowledge, reflection, life stories, interviews, artifacts, and social-cultural writings and productions, along with

observational, chronicled historical, interactional, and visual texts—that portray routine and problematic moments and implications in individuals' lives. Appropriately, qualitative researchers deploy a wide range of intersected interpretive practices, trusting continuously to get a better understanding of the subject matter at hand. It is understood, in any case, that each practice makes the world visible in a distinctive way. Consequently, there's regularly anobligation to use more than one interpretive practice in any study.

b. Multiple Gendered Images

Many gendered images may be brought to the qualitative researcher: scientist, naturalist, fieldworker, journalist, social critic, craftsman, entertainer, jazz performer, filmmaker, quilt maker, essayist, and writer. The numerous methodological practices of qualitative research may be seen as a soft science, journalism, ethnography, bricolage, quilt making, or montage (artwork). The researcher, in turn, may be perceived as a bricoleur, as a maker of quilts, or in filmmaking, a person who amasses images into montages (Cook, 1981; Monaco, 1981; Wolcott, 1995). A *bricoleur* makes do by 'adapting the bricoles of the world'. Bricolage is "the poetic making do", with "such bricoles—the odds and ends, the bits leftover" (Harper, 1987). The bricoleur is a "Jack of all trades, a kind of professional do-it-yourself" (Levi-Strauss, 1962). There are many kinds of bricoleurs—interpretive, narrative, theoretical, and political. The interpretive bricoleur produces a bricolage; that is, a pieced-together set of representations that are fitted to the specifics of a complex situation.

The solution (bricolage) which is the outcome of the bricoleur's method is an emergent construction (Weinstein & Weinstein, 1991), which changes and takes new forms as different tools, methods, and techniques of representation and interpretation are added to the puzzle. Nelson et al. (1992) describe the methodology of cultural studies as a bricolage. Its choice of practice, that is, is pragmatic, strategic, and self-reflexive. This understanding can be functional, with qualifications, to qualitative research. The qualitative researcher as a bricoleur or a maker of quilts applies the aesthetic and material tools of his or her creation, setting up whatever strategies, methods, or empirical materials are at hand (Becker, 1998). If new tools or techniques have to be invented or pieced together, then the researcher will do this. The choice of which interpretive practices to employ is not necessarily set in advance. The "choice of research practices depends upon the questions that are asked, and the questions depend on their context" (Nelson et al., 1992), what is available in the context, and what the researcher can do in that setting. These interpretive practices involve aesthetic issues and aesthetics of representation that go beyond the pragmatic or the practical. The concept of montage is useful (Cook, 1981, Monaco, 1981). Montage is a method of editing cinematic images. In the montage, a picture is

made by superimposing several diverse images on one another. Frequently, these images are combined in a swiftly run sequence. When done, this produces a woozily (dizzily) spinning collection of several images around a central or focused picture or sequence; such effects imply the passage of time.
Qualitative research, as a set of interpretive activities, privileges no single methodological practice over another. As a site of discussion or discourse, qualitative research is difficult to define clearly. It has no theory or paradigm that is distinctly it is own. Nor does qualitative research have a distinct set of methods or practices that are entirely it is own. Qualitative researchers use semiotics, narrative, content, discourse, archival, phonemic analysis, statistics, tables, graphs, and numbers. They draw on and use approaches, methods, and techniques of ethnomethodology, phenomenology, hermeneutics, feminism, deconstructionism, ethnographies, interviews, psychoanalysis, cultural studies, survey research, and participant observation, amongothers. All of these research practices "can provide important insights and knowledge" (Nelson et al., 1992). No specific method or practice can be privileged over another.

Social science includes different disciplines with different theoretical approaches and conceptual issues hence different theoretical perspectives, concepts and tools are to be espoused for conducting social research. It means disciplinary flavors should be added to disciplines. The major differences are that many disciplines use a rather quantitative approach and whereas others use a rather qualitative approach in data collection and evaluation. The uses of theoretical perspectives also differ. For example, the anthropological analysis used to be more comparative than the Sociological. Yet both the quantitative and the qualitative approaches have their faintness as well as powers. In substance, Anthropology has begun with the 'tribal or conventional societies' though Sociology has begun with 'cities or cutting edge modern societies' whereas in due time they have explored each other's spaces and have begun making overlapping studies. Lately, Sociological research has discovered the qualitative method. Yet, in all social research, site selection, rapport building, and fieldwork are indispensable.

6.1 How to Select the Site and Build Rapport?

Site Selection

Social sciences are the study of human societies and diversities around the world. They are the study of society, social life, social change, social functions, and the social causes and consequences of human behavior. Sociologists investigate the structure of groups, organizations, and societies and examine how people interact within these contexts. Since all human behavior is social,

the subject matter of Sociology ranges from the intimate family to the aggressive crowd; from organized crime to religious movements; from the divisions of race, gender, and social class to the shared beliefs of a common culture; and from the Sociology of work to the Sociology of popular culture. On the other hand, anthropologists gaze at cross-cultural differences in social institutions, cultural beliefs, and communication styles. They often pursue to promote understanding between groups by translating each culture to the other, for instance by spelling outsimple, taken-for-granted assumptions. Hence while selecting a site for conducting the research, the researcher should consider cross-cultural differences in social institutions, cultural beliefs, and communication styles of the people of the study site. He should think about the feasibility to promote understanding between groups by translating the culture to the other and the probable problems in rapport building and the consequent data collection.

The first and foremost task or step in the research is to select a site for the study. It means the researcher needs to select an area or field where he/she will conduct research. The location of the study areas or site selection is a vital task in any research. The researcher should select the site based on his research priorities, feasibility, and many other factors. The researcher should give a justification for why he has selected that site. It means a clear justification and rationale should be given why he selected that site. It means the rationality behind the selection of that site should be mentioned by the researcher. The geographical, social, and cultural significance and rationalities behind selecting that site should be choked out by the researcher. The researcher needs to spell out the location of the site/place he/she is going to conduct the research. Motive or reason should be also choked out clearly by the researcher for choosing that site/place.

By nature, human beings are curious to see, hear, and learn about the world around them. However, they differ in the ways they interpret worldly objects and events, and consequently, their action differs. Subjectivity is an integral part of people's decision-making, knowingly or unknowingly. Qualitative research is based on this premise. Hence the researcher needs to obtain a serious awareness of the theoretical assumptions, problems, and potential mishandling of research methods while researching his research site. Through practical exercises and experience researcher will gain an understanding of his capacities for site selection, rapport-building data collection, and recording of data. The researcher needs to acquire an understanding of how to set out the ground for the selection of a site. He needs to gain a capacity for conceptual and ethical reflection on anthropological research for the selection of the site for conducting the research. The grasp of method, epistemology, and ethics will make capable a researcher to select the site for his research in a precise way.

The researcher should realize and comprehend that people differ in their experiences and understandings of reality; how participants define a situation may not reflect assumptions made by the researcher. Similarly, a social phenomenon cannot be understood in its context. For this reason, before the selection of a research site for the proposed research, the researcher should think about all the situations, the probable behavior of the people, the prevailing social phenomenon of the region, and the feasibility of the research. The researcher should pre-imagine whether he can conduct his research at the site he has selected or not? Can establish rapport with the people or not? Can collect data or not? Before selecting the site for the study, the researcher should ponder on the prevailing political, social, cultural, and geographical situation. He should think about the expenses and feasibility of his research, and whether he can carry on with his research in a proper way or not. The researcher should conclusively mention what will be the theoretical, epistemological, and practical consequences of his selection of that research site and how his research on the site he has selected will practically help the local people of the study site, the policymakers, the community, and society, the nation,policy discourse, and the world.After the selection of the research study site, rapport building is another vital task that the researcher needs to build or maintain with the people of the study site which he has selected. Afterward, as the research passes through various stages before reaching its destination, it is imperative to adopt a balanced and scientific methodology for the successful conducting of the research.

Rapport Building

The word *rapport* signifies a relationship or association, especially one of mutual trust or emotional affinity. The word rapport is derived from Old French, *raporter*, to bring back: *re* + *aporter*, to bring (from Latin apportāre: ad-, *ad-* + *portāre*, to carry). The sense of rapport is establishing a harmonious relationship, togetherness, agreement, affinity, sympathy, and concord or empathy. It means winning the *heart and minds of the local people* whom the researcher's research is targeted on. The psychological meaning of rapport is intensely harmonious accord, between the researcher (outsider) and the people of the study site (internal). Rapport is *elation* or a kind of delight characterized by harmony, conformity, accord, affinity, and confidence between the researcher and the respondents of the research site. It is an act of willingness to cooperate in the establishment of a firm rapport or a relationship or support.

Building rapport is crucial to social research, and the time invested in building relationships yields rich complex data. Personal rapport is invaluable since it gave the researcher unlimited access to the time, resources, and the group. An environment of harmony, consonance, agreement, or accord achieved through

activities is rapport. For instance, a good researcher develops a good rapport with his respondent through different skills. Rapport is a kind of adjustment between the people and the researcher. The opposite of rapport is coldness and unfriendliness. It is a sense of mutuality and understanding; harmony, accord, confidence, and respect underlying a relationship between two persons; an essential bond between a researcher and respondents. It is a mystical sympathetic or antipathetic connection between persons.

The most operational way of rapport building is to achieve precise relations with any living thing and look for the best in it, and then help that best into the fullest expression. This adage seems realistic in the context of rapport because the term rapport signifies a smooth expression of views and sentiments between the researcher and local people. Rapport has also been employed by researchers to describe the necessary relationship between them and the local people of the study site as a prerequisite for the successful conducting of the data collection process. Rapport is seen as based on the faith of the local people of the study area, which is the necessary precondition for the successful conducting of data collection and the whole research process.

Rapport is one of the most important features or characteristics of communication in social science research. Many techniques are supposed to be beneficial in building rapport such as the use of local language, respecting local culture, respecting their sentiments, matching the body language (i.e., posture, gesture, etc.); maintaining eye contact; and matching breathing rhythm. Building rapport is an important component of anthropological research as well as sociological and social science research. It refers to founding relationships based on trust and mutual respect with the group or community where the researcher is guiding his research study. Rapport building is the process of demonstrating thoughtfulness and respect for local beliefs, traditions, and practices by the researchers and their team members.

Rapport building is asking thoughtful questions, being a good listener, and showing a willingness to learn from the group or community. It also means developing ties through sustained engagement with the group or community. Building rapport is one of the most fundamental techniques. Rapport is used to build relationships with others quickly and to gain their trust and confidence. It is a very powerful tool that experience researchers naturally employ, which allows them to do more dealing in the field with less effort which consequently enables them to collect required data, facilitate the research process, and even make better the staying conditions in the field and makes the research a successful one. As a psychological process of understanding and honoring the local community, rapport building is an integral part of preparing the research and the implementation of data collection techniques. The word rapport is used

in normal talk to indicate the relationship between and among individuals. When there is good rapport, it means that individuals can relate to each other. Bad rapport indicates difficulties in the relationship. Despite this common understanding of the term, for the researcher's purposes, it is necessary to distinguish among different stages of rapport building. How do build rapport swiftly in the field? Follow these techniques for fast rapid building:

- Check your appearance and body language.
- Remember the basics of good communication.
- Remember people's (respondents) names. For attentiveness remember their names and faces and show a keen interest in them.
- Find common ground
- Create shared experiences
- Actively listen
- Ask questions
- Reserve judgment
- Follow mannerisms and use appropriate language and tone.
- Be empathic

Tickle-Degnen and Rosenthal (1990) classify three components in the structure of rapport. The first is *mutual attentiveness*. Mutual attentiveness relates to the feeling as one and implies a focus away from self and toward others. The second is being *positive*. Being positive is defined as a sense of mutual friendliness and caring. The third is *coordination*. Coordination refers to predictability and equilibrium in the relationship. Nevertheless, the relative importance of each component differs over time as the relationship between and among individuals evolves. As individuals get to know each other and feel more comfortable, the importance of positivity decreases as their communication tends to become more open and honest. For instance, two friends who have known each other for several years incline to communicate more openly and with more freedom to disagree than two people who have just glanced at each other across the field.

The process of building rapport often leads to a distortion of the researcher's identity - for research personnel as well as for groups. Social science research methods such as participant observation and informal interviews are often not seen as research tools in the same way as a questionnaire or survey instrument is. Moreover, social research is long-term, and familiarity leads to the development of intimacy and the shedding of inhibitions. This opens up hidden areas to the researcher who is then viewed not as an *outsider* but as a *quasi-insider* privy to much more sensitive information than an outsider would ever have. Even those respondents who want to control the anthropologist's access to information and the observations made may find it hard to do so. In assorted situations, formal processes of local community support and consent develop in

the context of structured research field settings where the identities and roles of the researcher are more clearly defined. In anthropological research of long duration, it is imperative to renew, renegotiate and reaffirm the relationship based on a good rapport.

6.2 Fieldwork and Ethnographic Research

Fieldwork

There are different steps in conducting research e.g. hiring research subjects (respondents or research participants, or a person who voluntarily participates), methods of data collection, field visits for fieldwork, data evaluation, and conveying the results. Embedded with field visits, fieldwork,or field studies is an important step of research. Fresh or raw data collected from an outdoor workplace, library, or laboratory is called field studies, field research, or fieldwork. Fieldwork is one of the vital fragments of sociological, anthropological as well as all social sciences research. A field visit always takes place outside conventional locations and in the respondents' native surroundings. Field visits should be at once planned along with other applied data collection methods.

The mindset of fieldwork is complex and is embedded in diverse situations. Fieldwork is *intellectual labor* demanding *direct* or firsthand observation, recording or documenting what is seen and heard in a meticulous setting, maybe that setting is a busy marketplace of a metropolis or a rural community or a very backward tribal community, or an organization’s luxurious interiors or a very backward cannibal savage community. It is a methodical investigation, intended at discovering the relations and interactions between different variables in actual social structure. The exploration in a field study studies the local traditions, attitudes, values perceptions, behaviors, attitudes,etc. of the people of the community.Fieldwork has been defined in different ways by different scholars. Imminent scholar Kerlinger (1986) argues that:

Field studies are ex-post-facto scientific inquiries aimed at discovering the relations and interactions among sociological, psychological, and educational variables in real social structure……the investigator in a field study first looks at a social or institutional situation and then studies the relationships among attitudes, values perceptions, behaviors, etc of individual groups in the situation.

The field study is useful in empowering us to serve and measure social processes in their natural occurrence. The studies conducted as the behavior occurs in the natural habitat are called field studies and they employ the system of naturalistic observation. Jary and Jary (2005) have defined fieldwork as the

investigation of a real-life situation through observation or unstructured interviewing.According to Goode and Hatt (1952) fieldwork is a study of people and their culture in their natural situation.In qualitative research as in anthropology, it ought to be remembered that anthropology is the study of human beings and their cultures, from prehistoric times to today.It is the study of people hence intensive *fieldwork* is necessary for entering into people's *lives*. The people who practice anthropology are called anthropologists, and fieldwork is an important part of their research and study for entering people's lives.In anthropology, people are considered in all their biological and cultural diversities, in the present as well as in the prehistoric past, and wherever people have existed. Anthropologists are presentedwith the interaction between people and their environments to develop an appreciation of human adaptations past and present. Anthropologists often compare different human communities. They try to determine their similarities and differences. By doing this, anthropologists hope to increase their knowledge about humanity as a whole, as well as about specific groups of people.

In the global milieu, the first generation of anthropologists tended to rely on others like locally-based missionaries, colonial administrators, and so on to collect ethnographic information through fieldwork, often guided by questionnaires that were issued by metropolitan theorists. Armchair anthropology was a feature throughout the 19th century that was based on second-hand data gathered by untrained observers, especially by the ships' captains, missionaries, explorers, and others. Their theorizing was mainly based on superficial impressionistic writing. In fact, in the late 19th century, several ethnographic expeditions were organized, often by museums. Due to this as reports on civilizations and customs started to come in from various sources, anthropologists started collecting the findings in comparative frameworks to illustrate the course of evolutionary development or to trace local historical relationships. Under the *verandah approach,* anthropologists began to go to the field but set up nice houses with British missionaries, and invite local people (respondents) to be interviewed on their verandah (don't want them inside because they were savage). *Verandah anthropologists* were loitering in the verandahs of missionaries and city dwellers. They used to interview natives in the verandah and they were armchair and verandah anthropologists and all of them were white men from Europe, for example, Sir Edward Burnett Tylor.On the other hand, the *off-the-verandah approach* is different from armchair anthropology because it includes active participantobservation: traveling to a location, living among people, and observing their day-to-day lives. For them, fieldwork is the most important tool anthropologists used to understand the "complex whole" of culture.One of the pioneers of field research is Bronisław Malinowski who studied the Trobriand Islanders. He is known for his work *Argonauts of the Western Pacific*(1922).Malinowski focused on the

requirements of Anthropological fieldwork and participant observation. He lived with the community being studied and learned their native language. Malinowski urged that, however, in many cases; interpreters add tension, removing the anthropologist further from the object of study. He said that while doing fieldwork every social anthropologist should keep a diary that is both a source of extra material and an escape from true feelings. This raises an interesting point, about how much an official account is kept of fieldwork for possible public consumption, and where the reality of one's account is located.

One more pioneer of field research is Franz Boas who was a German geographer and physicist who worked in America and became the founder of American anthropology. His theory of cultural relativism and historical particularism stood vital. However, it is a reality that related to the evolution of fieldwork tradition before 1960 there was no discussion of field methods or field experiences, techniques, and objectivity. Tillthe mid-20th century, there was a focus on exotic (alien or foreign), believed to be unique non-Euro-American cultures, ethnic neighborhoods, and the homeless. With the change in time, the first generation of professionally trained anthropologists began to undertake intensive fieldwork on their account in the early 20th century but lacked rigorous theoretical backing. However,many researchers were giving more focus to library work rather than fieldwork. Given the more centralization of researchers in the library works rather than in the field the knowledge situation in anthropology and sociology had become depressing. Malinowski (1922) rightly remarked:

We needed to get off the verandas of the missionaries' and government officials' houses and go see what is going on among the people.

The majority of people, if they have any idea of what it is anthropologists do, almost certainly associate anthropologists with living in a remote village in the middle of a forest, getting excited when they discover some seemingly trivial or unimportant but unique, fact or ritual. However, it ought to be kept in mind that this image of an anthropologist is a bit of misrepresentation or caricature, but not totally. Likewise, it is also a reality that anthropologistsare extensively engaged in intensive fieldwork in all parts, sectors, and sections of society in any part of the world.Now here a vital question related to fieldwork is how do social scientists such as anthropologists prepare for fieldwork?

- What are the types of data-gathering techniques used?
- What are some of the problems faced that make fieldwork somewhat less romantic?
- What ethical dilemmas do they face?

In a tangiblelogic, anthropologists and sociologists as well as all social scientists refer to as fieldwork the following situations:

- Being in the field.
- It's the actual data-gathering aspect of the research, and it is what many researchers live for. This type of research is also what sets anthropologists apart from most other social scientists.
- Like most things, doing fieldwork both is and isn't more complicated than the stereotype would suggest.
- In qualitative research, the classic research method employed by anthropologists is known as participantobservation because that is what they do. They participate and observe. On the one hand, they observe what is going on around them.
- On the other hand, they try to participate as much as possible in the daily life of the group of people they want to learn about.
- It was Malinowski who first argued and emphasized practical fieldwork and the direct involvement in the field that will enable us to see what is going on among the people. The idea was and remains that only by immersing in the daily minutiae of actually-lived lives of the people, researcherscan obtain a deep understanding of how people live their real life. And many of the things anthropologists do are a direct outcome of the research method.
- In many ways, doing fieldwork is like leading two lives. In the participant part, the researcher as a field worker tries to take part in daily life as much as possible. For example, living with a herding family in and helping herd livestock.
- The researcher does fieldwork mix-up with people, make conversation, listen to and involve in gossip, and goesgrocery shopping where everyone else does (if there are supplies!). In the city area,a fieldwork researcher may visit neighborhood areas, ghettos, or nightspots. Whereas he is partaking, he is additionally frequently enquiring to the people. *Why do you are doing this? Why don't we do that? In what way?*

Anthropologists and sociologists regularly make a nuisance or fun of themselves, and to begin with to some degree like children in adult bodies as they in some cases inquire exceptionally trifling questions which appear exceptionally amusing and of exceptionally less worth to the nearby respondents. At the same time, they are doing all of this, a part they attempt to keep a certain mental distance and take notes of everything. This is the observation part. Take an example, suppose that if the researcher goes to a meeting, he is interested not only in what is said at the meeting but who is there, what the gender make-up of the group is, ages, attitudes, and interactions between the different people, and so on. Then, at the end of the day, or

whenever he has a spare moment, he writes it all down. The goal of all this observing and participating is, of course, to be able to understand whatever question it is that interests the researcher as a field worker. The reason anthropologists use participantobservation is that many of the things that anthropologists are interested in cannot be gathered through surveys or reading official documents.

Attributes of Fieldwork

- The most important basis of primary data collection.
- Holistic study of the group.
- Availability of more reliable and authentic information as the researcher himself/herself directly participates in the field.
- Micro real-life situation study of the community being studied.
- Different phases or stages of fieldwork.

Preparation of Fieldwork

Fieldwork is a rigorous process requiring physical and mental energy. The key is figuring out what you want your fieldwork to look like, how you want to collect your data, and what you are comfortable and uncomfortable doing. Lots of preparations are to be done for good fieldwork. We can categorize the preparation for fieldwork into four major divisions. The divisions are as follows:

a. **Intellectual Preparations**: The major intellectual preparations are as follows:

- Knowledge of the theoretical, practical, and data collection aspects of fieldwork.
- Review of the pertinent literature.
- Gathering the information related to the geographical, social-cultural setting, political, and educational condition of the field.
- Selection of field personnel.
- Taking advice from experts in the field matters for making the fieldwork objective and scientific.

b. **Psychological Preparations**

- Fieldwork is a challenging task hence the researcher should be psychologically convinced that he can do the fieldwork and collect data.
- Should be fully determined to collect objective information from the field.
- Fully determined psychologically to immerse in the local setting and to face the geographical, social-cultural, economic, and political realities of the field area.

c. Methodological Preparations

- Consideration of the nature of the universe, sample size, process, methods, etc.
- Developing efficiency in selecting relevant research methods, tools, and techniques.

d. Physical Preparations

- Arranging logistics namely lodging, food, medicines, camera, tape recorder, and all necessary commodities used in daily life.
- Arrangement of stationery items like notebooks, pens, pencils, etc.
- Arrangement of seasonal commodities like an umbrella, raincoats, etc.
- Managing commodities to face the probable geographical problems viz. stick, boots, etc.
- Arrangement of other commodities based on the size of the field team.

Stages or Steps of Field Study

Fieldwork is a rigorous process demanding both psychosomatic and corporealtermination. It is a process of interaction and observation of the behavior of the participants in their natural surroundings and collecting relevant information from them. There are different stages/steps of fieldwork that can be classified as follows:

a. Pre-Plan and Delimitation of Purpose

- Need to focus on questions like *what is the research area? what time it will take*?
- Making adequate strategies related to educational seminars, timetables, etc.
- Should be clear about the statement of the problem, objectives of the study, etc.

b. Limitations of the Field of Study

- The field area necessities to be fixed and demarcated.
- Need to determine the theoretical and methodological limitations of the research problem.
- Should determine what sort of and what type of information is required.

c. Field Entry/Rapport Building

- Entering the field and establishing relationships based on trust and mutual respect with the group or community.
- Demonstrating thoughtfulness and respect for local beliefs, traditions, and practices by the researchers and his team members.

d. Selection of Sample

- Fixing and selecting the adequate and the required sample from the field.
- Should be cautious not to divert from the sample fixed.
- Need to focus on the methods to be espoused for sample selection.

e. Implementation of the Work Plan

- Starting the fieldwork
- How do or carry on fieldwork?

f. Thinking about time allocation

- Thinking and consideringtime, budget, and resources

g. Pre-testing and Pilot Survey

- Rehearsal of all activities planned.
- Testing the instruments of data collection.
- Testing the techniques and theoretical potentialities etc.
- Should test the reliability and validity of instruments of data collection.

h. Collection of Data

- Field personnel will appear before the groups, exchange greetings, etc.
- The principal researcher explains the purpose and objectives of the research and requests help.
- Build rapport: Winning the *heart and minds* of locales and use of relevant tools for collecting the required information.

i. Organization of Field Notes

- Should arrange the field information topic-wise based on their nature.
- Can work up rough notes into fuller ones.
- If the facility is available, can use a laptop and a database program, and can arrange the notes much more easily.
- Can put down fuller accounts of what happened, and can also reflect on things.

j. Analyzing and Conclusion

- Should analyze the collected data scientifically.
- If suspicious data is traced should check the validity of the data.
- If the collected data seems inadequate should collect further data.
- Concluding.

Merits and Demerits of Fieldwork

Fieldwork is a daunting and tedious assignment with diverse merits and demerits. Some of the merits and demerits of fieldwork are as follows:

Merits

- Possibility of collection of concrete, factual and authentic information directly from the field.
- Easy to collect primary data which is the backbone of anthropological and sociological research.
- Collected data will be more objective owing to the presence of the researcher.
- Easy to analyze the objective data.

Demerits

- Time-consuming
- Expensive
- Problems with new locations and rapport building
- No guarantee that the field worker will get the required data
- May develop soft (sympathy) corner towards the local people which may hamper the data collection activity and the whole research and the objectivity findings may be lost.

Issues in Fieldwork

Merely asking a person what they think about a topic will get the researcher an answer, but what it gives him is an answer to his question. This is not necessarily the same thing as what people think, or how they act. If the researcher wants to understand people's views about superstitious values, or corruption, for example, he can ask them. And they will probably tell the researcher. However, it is more enlightening if a lot more work to hang out with people and see how they talk about superstitious values and corruption as they go about their daily lives. Researchers will also pay attention to what they do. People would probably tell the researcher that superstitions values and corruption are wrong and should be stopped. However, some superstitious values may be a part of local life. And if the researcher just did a survey that is what he would learn.

Anthropologists accept that it is the additional depth to their understanding that's critical and interesting. American typical anthropologist Clifford Geertz (1975) once portrayed it as being able to tell the distinction between a *wink* and a *blink*.

Within the case of his thinking about the individuals of Bali Island of Indonesia, he notes in interpretations of culture that a wink and a blink are physically the same activities. However, they carry deeply varied meanings. The goal of an anthropologist is to be able to understand a culture well enough to be able to tell the difference between the local equivalent of a wink and a blink. This means understanding the meanings that people attribute to things (at least in certain contexts) better than a researcher can do by just reading about a place. Such a depth of knowledge takes a long time. This is why anthropologists typically measure time spent in fieldwork in months rather than weeks or days as economists and political scientists do. Anthropologists also spend lots of time in the field for other reasons. If the first is that learning a culture well takes time, and another is that picking up information through conversation and observation is also slow. Also, the researcher's presence affects the communities they are living in. Anthropologists and sociologists are, after all, outsiders. Their being there disrupts the very things they want to learn about. So they often spend weeks or months letting people get used to hanging around them and learning confidently that they can be trusted before they start pushing their noses or interfering in more sensitive areas, or before people feel comfortable enough to talk more freely about politics or whatever.

When anthropologists do research, there are two basic types of notes they use. There are the on-the-spot (or immediately afterward) notes. If they are doing an interview or observing a political rally, they can usually write down a few notes to serve as memory aids. If the anthropologist is talking over a meal, it is usually considered bad form to pull out a notebook, so it has to wait. These notes are typically short, deep, mysterious, and semi-cryptic. He can use a stenographer pad, as they give a fairly good balance between size and having enough space to write things down. Even if the researcher as a field worker uses a taperecorder, he still tends to take notes, for several reasons. The first is the possibility of a taperecorder malfunction or other loss of data. The second is that not everything shows up on a tape where was the interview, what does the person look like, what his or her physical expressions were, and so forth. And, last but not least, having a notepad in front of a researcher working as a field worker is a good way to stall for time or to go back and check for things he might have missed.

Identical to what Malinowski did in Trobriand Island inthe early 20th century, researchers in the 21st century can later in the day, or in the late-night hour, can work up rough notes into fuller ones. In the present day if the facility is available, the researcher can use a laptop and a database program, so they can search the notes much more easily. He can put down fuller accounts of what happened, he can also reflect on things. During fieldwork, while participantobservation is the key method anthropologists employ, it isn't the only one. Depending on what they are studying, they will use several different

sources of information. They do often use surveys and questionnaires to cover more ground quickly. In the field, if they are in an area that has newspapers, that is another source of information.

What are the Ethics in Fieldwork?

Almost certainly the most important thing about anthropological research is the ethical aspect. The most significant thing about research is the people with whom the researcher as a field worker works. They should always come first. Field researchers are (or should be) clear about who they are and what they are doing. They are not investigative reporters. When they talk to people, it is clear that they are a researcher and why they want to talk to them. In the publications, researchers do not use real names if at all possible. Since people are going to be telling things or letting researchers see things that would have concrete consequences if they were attached to a specific, identifiable person, hence researchers must do their best to lessen or mitigate these. In many cases, much information provided by local respondents may be confidential they may be leaking confidential government information. Hence, exposure to the name will be dangerous and it is unethical too. It can be dangerous to the people who trust the researcher. Life might not be lost as a result, but the damage will still be done. At another level, ethics are much more of a judgment call. Especially if the researcher returns to the same research site multiple times, with people with whom he works as friends. And conflicts between respect for friends and research are certain to arise. There are no simple or easy answers here researcher must draw his line where he feels comfortable. In the end, the researcher should think that he has done the right thing and chosen friendship over research when the choice had to be made. Nevertheless, some anthropologists would choose otherwise and feel that they made the right choice.

Ethnographic Research

Ethnography is the study of ethnic groups. Ethnographic research is one of the most in-depth research. As the researcher lives in the research site for a long time - and sees what people are doing as well as what they say they are doing – an ethnographer obtains a deep understanding of the people, the organization, and the broader context within which they work. Ethnographic research is well appropriate for providing information with rich insights into the human, social, cultural, economic, and organizational aspects of human life. The ethnographical method is used across a range of different disciples, primarily by anthropologists but also frequently by sociologists. Cultural studies, economics, social work, education, ethnomusicology, folklore, geography, history, linguistics, communication studies, performance studies, and psychology are other fields that have made use of ethnography. The ethnographical method is used across a

range of different disciples, primarily by anthropologists but also frequently by sociologists. In fact, in all senses, the word Ethnography signifies the study of ethnic groups.

The term ethnography is derived from the Greek word *ethnos* which means folk or people and *graphia* means graphic or writing. Ethnography is a methodical research strategy used in social sciences, particularly in anthropology and in some branches of sociology, also known as part of historical science that studies people, ethnic groups, and other ethnic formations, their *ethnogenesis*, composition, resettlement, social welfare characteristics, as well as their material and spiritual culture. It is often employed for gathering empirical data on human societies and cultures.Ethnographic data collection is habitually done through participant observation, interviews, questionnaires, etc. As a science for the study of ethnos or the people, ethnography points to portray the nature of those who are studied (i.e. to portray an individual, an ethnos) through writing. In the organic sciences, this type of study might be called a 'field study' or a 'case report,' both of which are used as common synonyms for 'ethnography'.

The typical ethnography is a document written on a particular people, nearly continuously based onthe slightest portion of*emic* (inside) sees of where the culture starts and ends. Using dialect or community boundaries to tie the ethnography is common. Ethnographies are moreover now and then called *case studies*. Ethnographers study and decipher (interpret) culture, its universalities, and its variations through an ethnographic study based on fieldwork.Ethnography is a specific kind of written observational science that provides an account of a particular culture, society, or community. Ethnographic fieldwork usually involves spending a fairly long time –one year or more in another society, living with the local people, and learning about their ways of life. Researchers involved in the ethnographic study are ethnographers and they are participant observers of the events. They take part in events they study because it helps with understanding local behavior and thought. Based on the notion of qualitative research ethnographic studies are typicallyall-inclusiveholistic as it is initiated on the idea that humans are best understood in the fullest possible context, including the place where they live, the improvements they've made to that place, how they are making a living and providing food, housing, energy, and water for themselves, what their marriage customs are, what language(s) they speak and so on.

Numerous cultural anthropologists consider ethnography the essence of anthropology, however, it is a reality that ethnography has associations with fields as different as colonial office reports within the past and travel writing, the play, and the novel in the present. The first-hand systematic exploration of human culture through fieldwork by an anthropologist outcome is ethnography's

expressive account of the lives of individuals in a specific society. On the other hand, ethnology is the comparative analysis of cultural and social processes based on cross-cultural ethnographic information. It is crucial to keep in mind that the soul of anthropology is ethnography. By the by, it needs to be noted that Ethnographic methodology isn't more often than not evaluated in terms of philosophical angle (such as positivism and emotionalism). There's no agreement on assessment benchmarks of ethnography. Be that as it may, the ethnographer Richardson (2000) gives five criteria that ethnographers might discover useful;

1. *Substantive Contribution*: "Does the piece contribute to our understanding of social life?"
2. *Aesthetic Merit*: "Does this piece succeed aesthetically?"
3. *Reflexivity*: "How did the author come to write this text…Is there adequate self-awareness and self-exposure for the reader to make judgments about the point of view?"
4. *Impact*: "Does this affect me? Emotionally? Intellectually?" "Does it move me"?
5. *Expresses a Reality*: "Does it seem 'true'—a credible account of a cultural, social, individual, or communal sense of the 'real'?"

Archetypal or conventional ethnography endeavors to be holistic and typically follows an outline to include a transitory history of the culture in question, an inspection of the physical geography or terrain inhabited by the people under study, including climate, and often including what biological anthropologists call habitat. Folk notions of botany and zoology are presented as ethnobotany and ethnozoology alongside references from the formal sciences. American anthropologist Harold Conklin’s study on the Hanunoo tribe of the central Philippines in the mid-50s is an amazing illustration of such a study. *Hanunóo Color Categories* (1955), *The Connection of Hanunóo Culture to the Plant World* (1956), and *Hanunóo Agriculture* ((1957) are a few of Conklin's ethnographic works. Material culture, technology, and means of subsistence are usually treated next, as they are typically bound up in physical geography and include descriptions of infrastructure. Anthropologist Robin Burling madeethnographic studies on the Garo tribe of North East India in the mid-fifties. Burling studied the family and kinship in the Garo tribe village of Rengsanggri in the West Garo Hills of North-east India. Further, he studied the Garo languages, Comparative-Historical-Burman linguistics, the ethnography of kinship systems, ethnolinguistics, and historical contact of North-east Indian tribes. These rich ethnographic studiesdeal with the study of people in their environment through the use of methods such as participant observation and face-to-face interviewing. In ethnographic studies, kinship and family relationships and social structure (including peer groups, age grading, gender,

voluntary associations, clans, moieties, and so forth, if they exist) are typically included. For ethnographic ponders, lexis (dialect) talked, tongues, and the history of dialect (language) change are the standard themes. Practices of childrearing, acculturation and emic views on personality and values usually follow after sections on social structure. Now and then central to ethnographies are the studies of customs, rites and rituals, religion, belief systems, ceremonies, faiths, etc.

The tradition of Ethnographic Study in Anthropology and Sociology

Numerous ethnographic studies have been written over a long time covering nearly the entire range of human societies-from Papua New Guinea tribes lost in mountains to Serbian villages to the Kalahari Bushmen to the Pueblo dwellers of the American Southwest. Broadly, these wealthy ethnographic depiction comprises academic studies that sincerely examine marriages, clans, cross-cousin relationships, livelihood, agriculture, trade links, conflict, rituals, etc. Ethnography has a deep tradition of being attached to cultural anthropology and social anthropology which were developed around ethnographic research and their canonical texts which are mostly ethnographies: e.g. *Argonauts of the Western Pacific* (1922) by Bronisław Malinowski, *Coming of Age in Samoa* (1928) by Margaret Mead, *The Nuer* (1940) by E. E. Evans-Pritchard, *The Lele of the Kasai* (1963) by Mary Douglas. Cultural and social anthropologists today place such a high value on actually doing ethnographic research. Other classic examples are Victor Turner's *Forest of Symbols* (1970), and Claude Lévi-Strauss's *Tristes Tropiques* (1955). In recent days' ethnographic representations in the classic, the modernist camp includes Bartholomew Dean's work, *Urarina Society, Cosmology, and History in Peruvian Amazonia* (2009). In Nepal, different ethnographic studies have been conducted by Nepali and foreign researchers on Nepalese ethnic groups. An early example of the early fifties is the Furer-Haimendorf study on the Sherpas of Nepal. His book *The Sherpas of Nepal: Buddhist Highlanders* was published in 1964.

Over time, as ethnography developed, anthropologists developed more inquisitive about non-material or the less concrete aspects of culture which are abstract, such as values, worldview, and what Clifford Geertz (1975) termed the 'ethos of the culture. Clifford Geertz's fieldwork among the Balinese people of Bali Island used elements of a phenomenological approach to fieldwork, tracing not just the doings of people, but the social elements themselves. Geertz, while still following something of a conventional (traditional) ethnographic sketch, moved the exterior of that sketch to talk about webs (networks) rather than outlines of culture.

There are a few sub-types of ethnography within cultural anthropology. Beginning in the 1950s and early 1960s, anthropologists started writing bio-confessional ethnographies that deliberately and intentionally uncovered the nature of ethnographic research. Celebrated illustrations incorporate French anthropologist Claude Lévi-Strauss's *TristesTropiques* (1955), and *The Savage and the Innocent* (1968) by David Maybury-Lewis. Until a few years back, most ethnographic studies never included the life and experience of anthropologists /herself. But these days, it is normal to put oneself within the picture a bit. But it wasn't typical back in the 1950s when English ethnographer David, Maybury-Lewis examined the *Sherente* and *Shavante* peoples in Central Brazil and composed accounts of his experience/adventure separately from his research results. For this reason alone, *The Savage and the Innocent* is fairly popular. He learned the local dialect as the locals speak no other language than their own. This book details how Maybury got there, the conditions he had to live under, and his relationships with the indigenous Indians, who were undecided about strangers. With various photos, Maybury specified the hunting expeditions enduring for days, flights in rickety airplanes, ceremonies like all-night dances, tarantulas, jaguars, long river voyages, genuine sickness, and even murder, etc. His accounts remind us that it is a shame that more anthropologists might not write so well approximately their lives within the field.

Afterward, reflexive ethnographies refined the technique to decipher (translate) cultural differences by representing their effects on the ethnographer. Popular cases incorporate *Deep Play: Notes on a Balinese Cockfight* (1972) by Clifford Geertz, *Reflections on Fieldwork in Morocco* (1977) by Paul Rabinow, and *The Headman and I*(1978) by Jean-Paul Dumont. In *The Headman and I,* Dumont illuminates the process by which the ethnographer falls through the looking glass into another culture. Dumont's insightful ethnographic study of the *Panare* Indians of Venezuelan Guiana is an exceptional combination of hard ethnographic information and philosophical inquiry. Dumont is unequivocal in precisely the zone where most ethnography is inarticulate--the concrete details of the field experience. The result is a major commitment to the methodology of anthropological fieldwork as he looked to answer one question: "Who (or what) was I for the Panare?" Dumont's engagingly individual account of the *Panare*Indian view of the ethnographer and his culture centers around discourse and interaction instead of one-sided displays of information and conclusions. In another ethnographic study called *Tuhami* (1980) by Vincent Crapanzano, a delicate and bold experiment in interpretive ethnography has been presented. Crapanzano presents Tuhami's (an illiterate tilemaker) bizarre account of himself and his world. In so doing, Crapanzano draws on phenomenology, psychoanalysis, and symbolism to reflect upon the nature of reality and truth and to test the limits of anthropology itself.

Within the 1980s, the rhetoric of ethnography was subjected to intense investigation within the discipline, under the general influence of literary theory and post-colonial/poststructuralist thought. Experimental ethnographies that uncover the excitement of the discipline incorporate *Shamanism, Colonialism, and the Wild Man* (1987) by Michael Taussig, *Debating Muslims* (1990) by Michael F. J. Fischer and Mehdi Abedi, *A Space on the Side of the Street* (1996) by Kathleen Stewart, and *Advocacy after Bhopal* (2001) by Kim Fortun. Kim Fortun investigates different claims on the Bhopal gas tragedy by centering on the dynamics and paradoxes of advocacy in competing power domains. She moves from hospitals in India to meetings with attorneys, corporate officials, and environmental justice activists in the United States to show how the disaster and its effects remain with us. Spiraling outward from the victims' stories, the innovative narrative sheds light on the way advocacy works inside a complex worldwide framework, calling into question conventional notions of responsibility and ethical conduct.

Ethnography is also affiliated with sociology which importantly features ethnographies. Urban sociology and the Chicago School in particular are associated with ethnographic research. Some of the influences for this can be traced to anthropologist Lloyd Warner and Robert Park's experience as a journalist. Symbolic interactionism developed from the same tradition and yielded several excellent sociological ethnographies. Additional significant ethnographies in the discipline of sociology include French scholar Pierre Bourdieu's work on Algeria and France (Yacine, 2004). However even though many sub-fields and theoretical perspectives within sociology use ethnographic methods, ethnography is not the Sine qua non (an essential condition) of the discipline, as it is in cultural anthropology.

It is not only that ethnographic study is conducted in anthropology and sociology, but ethnographic studies are conducted in different social science disciplines and sectors. For example, the American anthropologist George Spindler was a pioneer in applying the ethnographic methodology to the classroom. Anthropologists like Mary Douglas and Tina Miller have used ethnographic data to answer academic questions about consumers and the consumption of goods in the market. Businesses, too, have found ethnographers helpful for understanding how people use products and services, as indicated in the increasing use of ethnographic methods to understand consumers and consumption, or for new product improvement (such as video ethnography).

Stages of Ethnographic Studies

An ethnographic investigation is a process of watching people's behavior in their natural environment. Observing the local people doing their customary

activities and working ina normal environment helps understand local people's life. It is comparable to strolling a mile in others' shoes to understand their perspectives needs and problems. There are seven major stages of ethnographic research which are as follows:

1. *Formulating Research Questions*

Unusually in ethnographic studies, the research questions are usually open-ended to collect qualitative facts from people in the community.

2. *Participant Observation*

This includes the investigator also being thoughtful about what is going on, and serving members of the group, at the same time becoming a participant in the many experiences that take place within that culture.

3. *Field Notes Making*

Field notes are notes that the researcher makes whilst being a participant. They are made at the same time as the experience undergoes, or the observation made, by the researcher. They are not made at a later date.

4. *Reflection and the Writing up of Fieldnotes*

Equallythroughout the partaking, and afterward, the researcher will reflect upon what they are experiencing and observing/have experienced and observed during that time as a participant within the culture. Away from the members of the culture under study, the researcher will need to writeup the notes that have been made in the field, and try to make some order and some sense out of them. This will help the development of the choices in terms of what the researcher will participate in and what further contacts will be made with members of the culture.

5. *Interviewing*

Interviewing can be officialor formal- in that the researcher will sit down with a series of questions and formally interview one or more members of the group/culture. Alternatively, interviewing can be informal - in this case, the researcher will interview members of the group or culture informally as if they were just talking to them, whilst at the same time having a good idea of the questions that require to be asked.

6. *Construalor Interpretation of Interviews*

As soon as an interview (whether it be formal or informal) has taken place, the researcher must write down the interview (or transcribes it, if it has been recorded) before not only the words have been forgotten, but also gestures and facial expressions, etc. The interviews then need to be analyzed and interpreted.

7. *Inscriptionor writing up the Ethnographic Research*

Afterthe end of the research study, it must be written up in journals and/or a book, as well as should be presented at conferences, seminars,etc.

Data Collection Methods in Ethnographic Study

Someof the utmost common methods for collecting data in an ethnographic study is direct, first-hand observation of daily participation. This can include participant observation. Another common method is interviewing, which may include a conversation with different levels of form and can involve small talk to long interviews. A particular approach to transcribing interview data might be a genealogical method. These methods, part of what is often called ethnography, has provided the discipline with most of its data and are the empirical basis for much cross-cultural study. The techniques for planning and carrying out ethnographic research, recording, storing, coding, analyzing, checking validity and reliability, and very importantly writing up ethnographic data are vital.

To hand, there are different procedures by which ethnographers discover and record connections of kinship, descent, and marriage using diagrams and symbols. Questionnaires can be used to help the discovery of local convictions and perceptions and in the case of longitudinal research, where there's a persistent long-term study of an area or site, they can act as a substantial instrument for measuring changes in the individuals or groups examined. By tradition, the ethnographer focuses attention on a community, selecting knowledgeable informants who know well the activities of the community. The informants are regularly asked to identify other informants who represent the community, often using chain sampling. This process is regularly viable and effective in revealing common cultural denominators associated with the topic being studied. Denzin and Lincoln (2005) claimed that seven standards must be deliberated for observing, recording, and sampling data.

1. The groups must combine symbolic meanings with patterns of interaction.
2. Detect the world from the point of view of the subject, while maintaining the distinction between everyday and scientific perceptions of reality.
3. Relate the group’s symbols and their meanings with the social relationships.
4. Record all behavior.
5. The methodology should highlight phases of the process, change, and stability.
6. The performanceor act should be a type of symbolic interactionism.
7. Use concepts that would avoid casual explanations.

It is to be recalled that focus groups, set an artificial stage, while ethnographic research reaches much deeper into the social texture. For a good ethnographic study ethnographers need to give high priority to fieldwork and require focusing on these points:

- Get the real deal
- Give sufficient time
- Triangulate the findings
- Get cross-disciplinary involvement
- Don't withhold
- Consider personal needs carefully

Ethnography relies greatly on up-close, personal feelings and experiences. Involvement or participation, rather than just observation, is one of the keys to this process. Interviewing may include a conversation with different levels of form and can involve small talk to long interviews. The guidelines for ethnographic interviewsare as follows:

a. Guidelines for Ethnographic Participant Observation

Advantages

1. Be a part of the regularity of everyday life – comprehensive*cultural immersion*.
2. Differentiate between actual and expected.
3. Authorizationor permits observation of nonverbal behavior.
4. Augments rapport.

Disadvantages

1. Trivialor small sample size.
2. Laborious and time-consuming.
3. Difficultieswith recording.
4. Interfering (obvious) effect on the subject matter.
5. Hawthorne effect (when subjects attempt to change or improve their behavior simply because it is being evaluated/studied).
6. It may be risky at times.
7. Difficult to obtain standardized comparable data.

b. Guidelines for Ethnographic Interviewing

1.Get informed consent before interviewing.
2.Uphold neutrality by not conveying to the interviewee what may be the desired answer.

3.Pre-test questions to make sure they are understandable and culturally relevant.
8. Retain the recording unobtrusive (noticeable and simple).
9. Circumstances under which the interviews are conducted should be consistent.
10. Proceed with simple, clean, and jargon-free language.
11. Express and phrasethe questions positively.
12. Retain the questions and the interview short.
13. keep or save controversial questions for the end.

Problematic Tool in Ethnographic Interviewing

1.Informants' refusal to cooperate.
2.Informants add strains.
3.Bias in the study.
4.Use of language, style of inquiring, and conditions in which asked, can alter responses.
5.Can give the researcher only a simplified overview of particular cultural phenomena, an idealized model.

c. Additional Data-Gathering in Ethnographic Study

Techniques

1. Census taking
2. Mapping
3. Archival and Historical sources, Texts.
4. Collecting Genealogies
6. Inventory of resources, Study of material remains.
7.Life Histories
8.What would you tell an anthropologist about your life?
9.Time allocation study.
10. Recording, Photography, and Videos.

d. After gathering ethnographic data……

1. Analyzing data
2. Interpreting data
3. Explaining the findings
4. Accepting or rejecting the hypothesis

Problems in Ethnographic Field Work

Pains of fieldwork

- Dauntingly challenging task

- Places great demands on time and convenience
- Practical arrangements, language, food
- Risky business
- Observer bias
- Androcentric bias (bias towards females)
- Lack of replicability
- Unsystematically collected data
- Psychological disorientation trying to adjust to differences in lifestyles
- Culture Shock

Culture Shock

- An occasion on which a field worker experiences culture shock
- How did the fieldworker feel?
- How did fieldworkers cope?
- What did the fieldworker learn from the experience?

Characteristics of Culture Shock

- Confusion over how to behave in a cultural context
- Surprise or disgust after realizing some of the features of the new culture
- Feeling a loss of old familiar surroundings and ways of doing things
- Feeling rejected by members of the new culture
- Loss of self-esteem sincethe field worker doesn't seem to be functioning very efficiently
- Doubt over field workers' cultural values

Symptoms of Culture Shock

- Homesickness
- Negativity towards the host culture
- Boredom
- Irritation
- Withdrawal
- Excessive sleep
- Marital and family tension
- Chauvinistic (Prejudiced excessiveness)
- Stereotyping toward the host community
- Exaggerated cleanliness
- Inability to work

The Idyllic Anthropological Journey: Thrice Born

- Ethnographers are born into their own original culture that is *firstborn* naturally.
- Ethnographers move away from a familiar place to a far place to do field research, which is twice-*born.*

- Ethnographers turn back to their native land after the completion of fieldwork and find the familiar has become alien (exotic)…...*thrice born*.

Ethics in Ethnographic Studies

Much debate surrounding the issue of ethics arose after the controversial ethnographer Napolean Chagnon (1974) conducted his ethnographic fieldwork with the man-eater cannibal Yanomamo people of South America. Chagnon put forward ethnographic details of the Yanomamo savage group by revealing the cannibalistic traditions of this group as a violent filthy naked tribe living in a state of chronic warfare. His findings have been regarded as unethical and rejected by other anthropologists. The nature of ethnographic inquiry demands that analysts move away from formal and idealistic rules or ethics that have come to be broadly acknowledged in qualitative and quantitative approaches to research. Numerous of these ethical presumptions are rooted in positivist and anti-positivist epistemologies that have adjusted over time but are clear and must be accounted for in all research paradigms. These ethical problems are apparent throughout the entire process of conducting ethnographies, including the design, implementation, and reporting of an ethnographic study. In a general sense, researchers are regularly not as ethical as they claim or are assumed to be---and each work incorporates ways of doing things that would be awkward or improper for others to know.

It is a reality that researchers often make idealized ethical claims and standards which in actuality are naturally based on partial truths and self-deceptions. Many of these partial truths and self-deceptions are unavoidable, for example, in Malinowski's study on Trobriand Island in which he ignored the performance and achievements of women. Illusions are essential to maintain an occupational reputation and avoid potentially more disrespectful consequences. In many situations, ethnographers cannot help but lie, but in lying, they reveal truths that escape those who are not so bold. Ethics are the part and parcel of any research hence ethnographers need to be abiding by the ethics of ethnographic studies. The ethics are as follows:

Ethics and Ethnographers

Areas of responsibility for Ethnographers:

There are numerous moral issues that one might experience while conducting ethnographic research. The essential ethical principles to be maintained incorporate doing good, not doing harm, and ensuring the independence, prosperity, security, and nobility of all research participants. Researchers ought to be as objective as conceivable and avoid ethnocentricity. Any deception of

participants ought to be completely justified and defended. An ethnographer should be cautious to respect and guarantee the well-being, self-esteem, or privacy of the people under study,largely the ……

a. Collaborative research and shared authorship
b. The local communities are the host governments and their government
c. Other members of the scholarly community
d. Organizations that sponsor research team
e. Feminist Anthropology constantly raises questions about the ethical neutrality and the treatment of ethnographic studies by ethnographers. Hence it is vital to ponder on:
f. Maintaining gender neutrality in ethnography and cultural theory
g. Men, who had limited access to women's lives, performed much of the fieldwork and ignored female issues hence ethnographers (both men and women) should give priority to woman's issues too
h. Ignoring women's perspectives brings about the oppression of women.

As of now, reflexive or narrative ethnography has become a preeminent issue in ethnographic studies. Reflexive Ethnography will offer assistance to use and understand ethnographic research practices that completely incorporate reflexivity without abandoning claims to develop substantial information on social reality. The use of reflexivity in ethnographic research and writing is used to assert that the anthropologist has efficiently and thoroughly uncovered their methodology and their self as the instrument of information collection and generation.

Reflexive or Narrative Ethnography

a. A swing from Scientific Objectivity and aloofness (lacking interest) to more narrative and subjective ethnography
b. Ethnographies replicate the interaction of their personalities and culture with those of their informants to produce cultural data
c. Procedural Pluralism or taking the help of different or multiple methods

There are numerous essential moral standards to be followed by an ethnographer. These incorporate doing great (beneficence), avoiding harming (non-maleficence), and securing the independence, prosperity, security, and respect of all research participants or respondents. As ethics is an intellectual andexclusive term and different sorts of ethical approaches related to ethnographic studies, hence, many ethnographers present themselves as being more sympathetic than they are, which aids in the research process but is also cheating or deception. The identity that ethnographers present to subjects is different from in other circumstances and this is not ethical.

a. *The approachable or friendly ethnographer*: Ethnographers operate under the assumption that they should not dislike anyone. In actuality, when hated individuals are found within research, ethnographers often crop them out of the findings.
b. *The truthful or honest ethnographer*: If research participants know the research goals, their responses will likely be twisted. Therefore, ethnographers often conceal what they know to increase the likelihood of acceptance.
c. There are also additional multiple ethical issues related to ethnographic studies which are as follows:

a) ***Technical Skills***

The exact or the accurate Ethnographer: Ethnographersrepeatedlygenerate the wrong impression that field notes are data and reflect what happened. They engage in the opposite of plagiarism, giving credit to those undeserving by not using precise words but rather loose interpretations and paraphrasing. Researchers take near-fictions and turn them into claims of fact. The closest ethnographers can ever really get to reality is an approximate truth.

The*Alert and Observant Ethnographer:* Person who reads ethnography are often led to take for granted that the report of a scene is complete – that little of significance was missed. In reality, an ethnographer will always miss some aspects because they are also human beings and not omniscient or omnipotent ever knowledgeable to know the whole thing. Everything is open to multiple interpretations and misunderstandings. The ability of the ethnographer to take notes and observe varies, and therefore, what is depicted in ethnography is not the whole picture. Even Malinowski was not an exception.

The Unobtrusive Ethnographer: As a *participant* in the scene, the researcher will always affect the communication that occurs within the research site. The degree to which one is an active member affects the extent to which sympathetic understanding is possible.

b) ***The Ethnographic Self***

The *ethnographic self* is the revelation of theprocess of identification. The ethnographic self is related to fieldwork and the representation of identity. It centers on ethnographic presence within the field, and the implications of this in and beyond fieldwork, investigating issues such as the creation of the ethnographic self. However, this is a complex task. Hence ethnographer's research is too complex and full of misconceptions. There's an "underside" to

ethnographic work. Each ethnographic fieldwork incorporates ways of doing things that would be inappropriate for outsiders to know. Delusions are basic for keeping up the occupational reputation, but within the process, they make a set of ethical problems. So it is with ethnographic work. The underside of ethnographic work compromises that one habitually makes with idealized moral benchmarks. The images of ethnographers—personal and public—are based on partial truths or self-deception. Changes in ethnographic styles and conventions alter the balance of these deceptions but don't eliminate the need for methodological illusions. There are numerous other commonly ill-conceived conceptions of ethnographers:

- *The Candid (open or frank) Ethnographer:* In the condition where the researchers situate themselves (self) within the ethnography is ethically problematic. There is a false impression that everything reported has happened because the researcher has direct self-involvement and has been directly exposed to it.
- *The Chaste (pure) Ethnographer:* In the process of fieldwork when ethnographers are involved or partake within the field, they habitually develop relationships with research subjects/participants. The soft corner may develop in such a situation. But, these relationships are sometimes not accounted for within the reporting of the ethnography even though they apparently would influence the research findings.
- *The Fair Ethnographer*: Total objectivity is a difficult task. Many anthropologists claim objectivity is an illusion and that everything in ethnography is known from a perspective. Therefore, it is unethical for a researcher to claim total fairness in the findings.
- *The Literary Ethnographer:* Representation is a harmonizing act of determining what to show through rhythmic language and style versus what to tell via straightforward, factual reporting. The personal skill of the ethnographer influences the facevalue of the research.

6.3Observation and Participant Observation

Observation permits the evaluator to see what is happening within the venture. In contrast, participant perception or observation denotes when the evaluator participates as he or she watches, talks with partners, and partakes in venture activities. Surveillance is the *hallmark* or foundation of qualitative anthropological research. To 'see'is to observe. To have a look and develop a point of view is observation. Observation has triple components, namely, *sensation, attention, and perception* and it is one of the important methods of data collection. The observation method is highly applicable in that the relatively small size of the group, or on occasion individuals, as well as the long periods spent with them, means that a substantial amount of highly detailed first-

hand data can be achieved. The difficulties are understandable for those in favor of a quantitative approach, for the observer what to record. The ultimate report may appear to have more in common with journalism than rigorous, scientific methods.

As a complex method, the researcher in the observation method aims to observe the behavior of a group, usually for an extended period. Observation does not commence from a formal hypothesis but from a set of preliminary aims, which can be modified, retained, or rejected as research proceeds and unexpected and interesting material presents itself. Observation ranges from mere eavesdropping (listening) to participating in the activities of the people involved. As such, the holistic approach by observers, particularly participantobservers, allows this method to make an important contribution to ethnography, the study of a way of life.

Observation means monitoring by learning the local language or dialect and, to the greatest extent possible, involving in everyday life while at the same time maintaining an observer's objective detachment. Observation, while necessary and useful for gaining a thorough understanding of an unfamiliar culture, is in practice quite difficult. The main endeavor of observation is to observe the behavior of a group, usually for an extended period. Observation does not begin from a formal hypothesis but from a set of preliminary aims, which can be modified, retained, or rejected as research progress and unexpected and interesting material presents itself. Observation ranges from mere eavesdropping (listening) to participating in the activities of the people involved. As such, the *holistic* approach taken by observers, particularly participantobservers, allows this method to make an important contribution to ethnography, the study of a way of life. The basic features of the observation method are:

a. Dispassionate, objective and intensive(concentrated) study
b. Total use of human sense organs namely eyes, nose, brain
c. Easy to know about mutual and cause and effect relationship
d. Easy medium for the collective study of groups
e. More scientific and reliance owing to direct involvement in the field

Observation in broad-spectrum is seen by those in favor of qualitative methods as being high validity in that the relatively small size of the group, or on occasion individuals, as well as the long periods, spent with them, means that a considerable amount of highly detailed first-hand data can be gained about a small number of people, usually in an environment of their choosing. For phenomenologists, the purpose of research is to get as close as feasible to the realities underlying human activities.

Types of Observation

1) Participant Observation

Participant observation evokes unique observation data from both an *insider's* and an *outsider's* viewpoints. As a participant eyewitness, the analyst experiences moral, time, and setting challenges while conducting the observation. But the observer ought to also assess potential benefits and challenges to determine the observation process. Observation may be covert or overt, participant or non-participant. Partakeror participant observation has its roots in anthropology and its use as a methodology can be credited to Abū Rayhān Bīrūnī (973-1048), a Persian scholar who conducted extensive, individual investigations of the people groups, traditions, and religions of the Indian subcontinent. For the time being, participant observation became a well-known strategy for information collection. Goode and Hatt (1952) contend that participant observation is done when the investigator can so disguise himself as to be acknowledged as a member of the group. Hsin-Pao Yang (1949) expresses that a participant observer is an outsider who incidentally becomes an insider. He subsequently secures a better insight into the situation he/she is investigating, as he is not personally involved and can remain detached, while at the same time taking part in the group activities and sharing their sentiments and preferences.

Participant observation refers to the researcher's presence in and interaction with a group or community when a social activity or event is taking place. Participant observation is a qualitative method with roots in traditional ethnographic research, whose objective is to help researchers learn the perspectives held by study populations. Qualitative researchers presume that there will be multiple perspectives within any given community. They are interested both in knowing what those diverse perspectives are and in understanding the interplay among them. Qualitative researchers achieve this through observation alone or by both observing and participating, to varying degrees, in the study of the community's daily activities. In typical anthropological languages, it refers to the researcher's total immersion (engagement) in another culture, generally for an extended period. Participant observation refers to what is seen through the eyes of the researcher. What a researcher observes of another culture or even her own culture, is shaped by his or her theoretical orientation, as well as personal values, experiences, assumptions, and biases, which are often hidden and occasionallyunfamiliar to the researcher. Some of the rudimentary tenants of participant observation are as follows:

- Participant observation methodically pursuesas well assystematizesinformationregarding what is being studied based on a

social science theory and methodology rather than focusing on achieving a situationally defined goal.
- Maintains comprehensive records of what occurs, including those things characteristically taken for granted.
- Intermittently disengage self from the situation to review records from the neutral position of a social scientist.
- Incessantly screens and displays observations and records for evidence of personal bias or prejudice.

Participant observation deals with a research methodology in which the analyst takes on a role in the social circumstance under observation. The social researcher drenches himself/herself in the social setting under study, getting to know key actors in that location in a role that is either covert or overt, although, in practice, the researcher will often move between these two roles. The aim is to experience events in the manner in which the subjects under study also experience these events. Sociologists and anthropologists who employ participant observation as a research tool aim to discover the nature of social reality by understanding the actor's perception, understanding, and interpretation of that social world. Whilst observing and experiencing as a participant, the anthropologist and sociologist must retain a level of objectivity to understand, analyze and explain the social world under study. Mainly, there are two main types of participant observation overt and covert:

a) Overt participant observation*:* Overt observation includes the observer (researcher) being open with the group whom they are studying, the society is aware that they are being observed (investigated), since the one observing (researching) them has informed them. This signifies that those being studied are aware of the true reason for the researcher's presence (Barnard, Burgess, and Kirby, 2004). This has the considerable disadvantage of ensuring that the subjects do not behave as they normally would, leading to behavioral changes such as factory workers increasing productivity as a response to increased interest in their work, and deviant gangs putting on extravagant or overgenerous displays to impress their willing audience. In covert observation, the researcher's true identity is unknown to the group throughout the research period. In participant observation the researcher engages in the group's activities, while in non-participant observation they merely observe, aiming to play as little a part in the group's activities as possible. Overt participant observation involves a researcher being known to the group and engaging in their activities. For many researchers, this approach is more ethically acceptable than covert observation because no deception over their identity and purpose. It is also less dangerous in that there is no chance of their hidden identity being discovered, and there is no exception for them to engage in illegal behavior. Some of the other features of overt participant observation are as follows:

- The investigatorisexposedregarding the motive for his/her presence in the field of study since the researcher is permitted by the group to conduct research.
- The use of a 'sponsor', who is an individual likely to occupy a high status within the group, therefore lessening any potential hostility towards the researcher.
- Difficulties with overt observation comprise:
  - *Observer effect*, where the behavior of those under study may alter due to the presence of the researcher.
- The advantages of the use of overt observation comprise:
  - *The avoidance of problems of ethics in that the groups are aware of the researcher's role.*
  - *The group is being observed in its 'natural setting'.*
    Data may also be openly recorded.
  - *Problems of 'going native' are avoided.*

b) Covert participantobservation*:*Covert Observation is where the group being observed does not know they are being observed, or where the research goes *undercover*. It is a strategy in social science research where the observer's status is obscure (unknown) to the group. It involves a researcher secretly becoming part of a group and taking a full part in their lives. This has the advantage of being as close as possible to the natural behavior of the group in their environment, placing the researcher inside the group's value system and being part of their everyday behavior. Where deviant groups are being observed, particularly those engaging in illegal activities, the covert presence of the observer is less likely to change their behavior than if the group knew they are being observed, although it may nevertheless be the case that this new member, no matter how hidden their identity may be, may nevertheless influence the groups' behavior. This can happen, for example, if the researcher is older, giving validity to a teenage group's behavior. Lengthy engagements with a group can also create the possibility that the observer over-identities with the group, and loses their objective approach to their research. Some of the other features of covert participant observation are as follows:

I. The social researcher participates fully without informing members of the social group of the reasons for her presence, thus the research is carried out secretly or covertly.
II. Interactionwith a *gatekeeper*, a member of the group under study who will introduce the researcher to the group.

Complications of covert observation include:

- The investigator has to become involved in criminal or dangerous activities, particularly where the research is studying a deviant social group.
- Difficulties of negotiating and having to act out forms of behavior that the researcher may personally find unethical or distasteful.
- The investigator has to employ a level of dishonesty or deceit since the researcher is essentially lying about the nature of his/her presence within the group.
- Nearbycompanionships are often resulting from connections with members of the group under study and the covert nature of the research can put a tremendous strain on the researcher, both in and out of the fieldwork setting.
- The problem of *going native* refers to the fact that a researcher will cease to be a researcher and will become a full-time group participant.
- The advantages of this type of covert participant role are:
  - The researcher may gain access to social groups who would otherwise not consent to be studied.
  - The avoidance of problems of the *observer effect* isthe conception that individuals' behavior may change if they know they are being studied. However, there are problems with recording data.
- One daring but the well-known illustration of *undercover* covert participant observation is that embraced by Erving Goffman in his study of mental clinics, published as 'Stigma' in 1968. Goffman worked in an asylum as assistant athletic chief for the mentally ill. His research was covert, with only a couple of staff being privy to the knowledge of his research, and by employing this method, he was able to reveal the 'unofficial reality of life in a mental institution.

Forms of Participant Observation

The approaches used while conducting participant observation typically alter over time. Participantsurveillance (observation) is a qualitative information collection methodology that gives rich descriptive data on human behaviors and experiences in a specific setting. This approach empowers a researcher to take part in a social group and observe people as well as the environment. In doing so, the researcher develops an all-encompassing understanding of how people make sense of their experiences and what is happening around them. As a qualitative data collection methodology, participant observation offers enough in-depth descriptive information on human behavior and understanding in a particular context. In doing so, the researcher develops an all-inclusive acceptance of how people make logic of their know-how and what is occurring to them. This emphasizes (a) the researcher’s level of inclusion, (b) reflexivity of the participant-observer, (c) types of observation conducted (d) observation

record, and (e) Fieldwork analysis. All these require a profound understanding of people's sentiments, feelings, and different forms of field participation to be adopted on the part of the researcher. Hence, the forms of participant observation while conducting participant observation archetypally alter over time. The forms of participant observation are as follows:

1. *Exterior participation*: Constitutes the most reduced degree of inclusion in observation. This sort of observation can be done by observing circumstances on television or videotaping.
2. *Inert participation*: This signifies that the researcher is present at the scene of the activity but does not interact or take part. The researcher finds an observation post and takes the role of a bystander or spectator.
3. *Balanced participation*: This implies that the researcher keeps up a balance between being an insider and being an outsider. The researcher observes and takes an interest in a few activities, but does not participate completely in all activities.
4. *Livelyor active participation*: This signifies that the researcher by and large does what others within the setting do. While beginning with observation to learn the rules, as they are learned the researcher gets to be effectively engaged within the activities of the setting.
5. *Total participation*: The researcher is a natural participant. This is typically the most noteworthy level or natural degree of involvement.

In participant observation researchers participate as much as possible in local daily life (i.e. rituals, ceremonies, meal preparation) to gain an emic perspective or the insider's point of view. The emic worldview is usually different from the etic or outsider's point of view. It signifies that the participation of the observer in observation is direct and those being studied are aware of the true reason for the researcher's presence. This has the substantial disadvantage of making certain that the subjects do not behave as they normally would, leading to behavioral changes such as factory workers increasing productivity as a response to increased interest in their work, and deviant gangs putting on extravagant displays to impress their willing audience that is the observer. In a participant observation among nursery school kids in America, kids behaved very differently, oddly, and were unnaturally silent and passive which is against their natural behavior.

Participant observation constantly takes place in community settings, in locations believed to have some relevance to the research questions. The method is distinctive because the researcher approaches participants in their environment rather than having the participants come to the researcher. Generally speaking, the researcher engaged in participant observation tries to learn what life is like for an insider while remaining, inevitably, an outsider.

While in these community settings, researchers make careful, objective notes about what they see, recording all accounts and observations as field notes in a field notebook. Informal conversation and interaction with members of the study population are also important components of the method and should be recorded in the field notes, in as much detail as possible. Information and messages communicated through mass media such as radio or television may also be pertinent and thus desirable to document.

The process of informationacquired through participant observation serves as confirmation against participants' subjective reporting of what they believe and do. Participant observation is also useful for gaining an understanding of the physical, social, cultural, and economic contexts in which the group under study live; the interaction among and between people, background, ideas, norms, and events; and people's behaviors and activities – what they do, how frequently, and with whom. Further, the method enables researchers to develop a familiarity with the cultural scenario. However, participant observation is ethically accepted as it involves a researcher being known to the group and engaging in their activities. There is no dishonesty over the identity of the observer and there also exists no danger of being exposed and being distrusted during the further study. However, in many cases, harsh situations may arise.

Participant observation necessitates a researcher, or researchers, staying within a given culture for a comprehensive period, to take part in its daily life in all its social-cultural, religious, economic diversities, prosperity or poverty, etc. The researcher in such an approach tries to experience a culture from within, as a person native to that culture might do. Nevertheless, the observer should not use the lenses of his own culture for judging and analyzing the group observing. For instance, in the years 1915 to 1918, Bronisław Malinowski did pioneering work studying the Trobriand Islanders of the South Pacific. Malinowski was trying to connect one activity and its meaning to another. It produced rich data. This richness was assisted by asking always the simplest of questions. Why this, and then why that? The questions a good participant-observer, when doing a series of questions (interviewing or questionnaire) ought to investigate in detail, even if the people under study think this is frustrating and irritating. The local people experienced the same with Malinowski in Trobriand but this was handled efficiently by Malinowski. Malinowski himself questioned his participant observation method and validity of data - he was always trying to find ways to collect and categorize material, documents, and objects as well as notes from participant observations. What Malinowski showed was how rich material can be from participant observation. The material, taken over a long enough period, and with sufficient recording depth according to a qualitative strategy, brings rich results.

Objectives of Participant Observation

The objective of participant observation is to gain a profound understanding and familiarity with a certain group of people, their values, convictions, beliefs, and way of life. The key goal is to penetrate the depth of knowledge that permits the researcher to obtain the perspective of knowledge of social issues and phenomena generated from the level of the ordinary lives of those experiencing them. This research technique is broadly usedin disciplines like anthropology, sociology, psychology, education, and communication studies to get first-hand information about the local people and their communities. The primary way to get to know the local community and the people is to become like one of them, and it is by learning their language that we will become their fellow citizens. It points to gaining close and intimate familiarity with a given group of individuals be it a specific community, religious, occupational, or subcultural group, etc., and their practices through an intensive involvement with people in their natural environment, usually over an extended period. Many consider this an egalitarian research strategy since it centers on the experiences, viewpoints, and knowledge of those studied. This type of research has been the source of a few of the foremost striking and important studies in social sciences.

In the 20th century, the observation method began in the fieldwork of social anthropologists, particularly Malinowski in his study of 'Argonauts of Western Pacific' and his students in Britain, and the students of Franz Boas in the United States, and the urban research of the Chicago School of Sociology in the United States. Other examples of this form of participant observation include studies, where researchers lived for long periods among distinctive ethnic, social, or religious communities, e.g. Radcliff-Brown, undertook fieldwork in the Andaman Islands in the Indian Sea, research which led in 1922 to the publication of his classic monograph *The Andaman Islanders*. Margaret Mead (1928), Clifford Geertz (1973), and Goffman (2014) dwelled in jails or gang-run communities (Wacquant 2002) and checked into medical and/or psychiatric centers.

Methods and Practices of Participant Observation

Observation, especially participant observation, has been used as a device for collecting information about people, processes, and cultures in subjective qualitative research. In this observation methodology, the researcher drenches himself within the day-by-day activities of the participants to record the behavior in as numerous scenarios as conceivable. This method makes a difference you perceive and comprehend what people are doing and compare it with what they say. In this way, you help researchers know if the people with whom you are conducting a study act differently from what they are portrayed.

It moreover permits the researcher to better understand what is happening in a given group and its sociocultural environment, giving more noteworthy validity to their interpretations of the observation. In expansion, it permits the researcher to gather qualitative information through various types of interviews and quantitative information through overview surveys and distinctive quantitative observation strategies.

a. A varied range of methods namely direct observation, informal interviews, participation in the life of the group, collective discussions, analyses of personal documents produced within the group, self-analysis, and life histories are part of participant observation.

b. Participant observation is generally characterized as qualitative research, however, it can and often include quantitative dimensions. The method of participant observation describes and explains people's behavior on an everyday basis.

c. The observation method requires a researcher to immerse him or herself in a new-fangled culture and the observer participates in people's daily lives and records what he or she sees and hears. It is only through observation that data is collected for a meaningful analysis hence it can be said that participant observation is the fieldwork that researchers perform in their research location which produces detailed descriptions of what researchers see and hear in their research location.

d. The researcher's understanding and analysis are also an important part of the statistics. In addition, researchers collect the following data through participant observations:

    - Sketches and Photographs
    - Audiotapes of people talking and/or narratives, telling stories
    - Video recording of people's activities, such as gathering, cooking, arguing, and participating in ceremonies and 'rites de passage' namely birth, marriage, death, festivals, etc.
    - Record or transcription of questions that researchers ask
    - Materials related to sites, such as brochures and maps
    - Records of the researcher's outlook, insights, visions, feelings, etc. e.g. Malinowski's experiences in the Western Pacific.

Merits of Participant Observation

The participant observation method provides great accuracy because the observer openly observes and interrelates with the observed. As the researcher conducts observational research, he can perceive the happenings in a natural setting that allows him to discover insights that he usually could not collect from other research methods like surveys or focus group discussions. The different merits of participant observation are:

a. There prevail high possibilities to assemble all essential data through participant observation. By coming into contact withthe daily lives of people, the researcher can establish close relationships with them. This trust is crucial for obtaining valid data because otherwise local people may not be exposed to a researcher who is an outsider or an unknown alien.
b. It is helpful for the researcher to formulate effective questions for people. By realizing and experiencing local people's daily lives through the researcher's own eyes, ears, and brain, the researcher can learn common knowledge shared among the people. This knowledge enables the researcher to realize the ground reality and ask appropriate questions that make sense to people and their realities rather than mere *romanticism*.
c. It is possible to develop an insightful acceptance of ethos through participant observations. The more the investigator can adjust and becomes recognizable with people's lives, the more he or she can efficiently read the meanings of the data collected. This aptitude leads the researcher to draw dependable conclusions from the research.

Demerits of Participant Observation

In participant observation, there is a high risk of bias while collecting the data. Further, the representative sample being studied may be very small. Participant observation is time-consuming; it takes a lot of time to gather factual data using participant observation. Similarly, there are many other demerits or disadvantages of this qualitative method. For example, the researcher can become influenced by the group under study so there are chances that his research might be in their favor or prejudiced against them. It also depends on whether the researcher is overt or covert, the disadvantages will be different for them. If the observer is doing overt participant observation, then the group under study might alter or modify their behavior accordingly, as people just do not act normal if they know they are being observed. This is known as the *Hawthorne Effect*which confirms that people will modify their behavior simply because they are being observed. In an experiment conducted among nursery kids in the USA, the kids behaved in an unnatural way against their nature as the researcher was a

participant observer and his arrival and research were pre-informed to the children. In such conditions, consequently, the research will be invalid. Moreover, if the identity of the researcher is revealed then there could be serious consequences for them. If the researcher is engaged in covert participant observation, then there comes the problem of ethics as the researcher is deceiving the group by not telling them the true purpose of his research. We can present the further demerits of participant observation in the following points.

Participant observation has problems with adjustment for the observer in a new environment and condition. Anthropologist Malinowski faced numerous glitches and difficulties in the Western Pacific while conducting research on Argonauts at Trobriand island.

a. Problems with language and used to behavior, culture, traditions, etc.
b. Probabilities of the development of soft corners (to feel that you like someone very much) and prejudices.
c. Difficult to incorporate all activities in a sequence and high dependence on memory.
d. Extremely lengthy and time-consuming.
e. Very expensive.
f. Numerous ethical questions and issues related to participant observation.

2) Non-participant Observation

Non-participant observation ensues when the researcher observes the group passively from a distance without participating in the group activities. Here the observer does not try to influence or take part in the group activities. This type of observation comprises observing the participants without actively participating. It helps understand a phenomenon by entering the social system or community but remaining discrete from the activities going on among the people. As a field research technique, the researcher watches the subjects of his or her study but without taking an active part in the situation under scrutiny and activities of the people.The researcher's true identity remains unknown to the group throughout the research period. The researcher observes the group but without taking a vigorous involvement in the situation under inspection. To overcome this, researchers normally observe several similar situations, over some time. In the present day, although video or recorders can be used in non-participant observation, this too may alter (indeed almost certainly will alter) the behavior of the research subjects.

Non-participant observation is very difficult because one cannot enter into the core of any matter without proper participation in it. It is not possible to imagine a kind of relationship when the researcher is always present but never

participates. Such a situation is never favorable for both the observer and the observed.In covert non-participant observation, the researcher secretly observes the group *without taking part* in any of its activities, allowing them to achieve a certain detachment from the group and to remain objective towards them, though this form of research is close to spying. Overt non-participant observation involves a researcher being known to the group without taking part in their activities, removing the possibility of becoming engaged in criminal offenses as well as not requiring the researcher to have the same social characteristics as the group. It is also the form of observation furthest removed from placing the researcher inside the group's value system, where it is very likely that they will be highly conscious of the person watching them (Barnard, Burgess, and Kirby 2004).

It ought to be noted that in participant observation the researcher engages in the group's activities, while in non-participant observation they merely observe, aiming to play as little a part in the group's activities as possible. Non-participant observation involves a researcher secretly becoming part of a group and becoming involved in data collection. This has the advantage of being as close as possible to the natural behavior of the group in their environment, placing the researcher inside the group's value system and being part of everyday life. The presence of the observer is less likely to change their behavior than if the group knew they were being observed, e.g. the study of nursery kids by Spitz (1945) shows more systematically that social interactions with other humans essentially influence behavior.

Demerits of Non-Participant Observation

In non-participant observation researcher clandestinely observes the group without taking any part in any of its activities, allowing them to achieve a certain disconnection from the group, and to remain objective towards them, but this form of research is close to spying, and sometimes claimed to be unethical and dangerous. This type of observation is very difficult because one cannot enter into the core of any matter without proper participation in it.Some of the basic points of demerits are as follows:

a. Superficial study in the absence of total submersion in local culture
b. Chances of suspicion and doubts
c. Lack of feeling on the part of the observer and the group observed
d. Neutrality may be dangerous in many conditions.

Merits of Non-Participant Observation

Non-participant observation is one where the observer (researcher) chooses not to play any part in what is being observed. An advantage of this is that it permits

a more objective view of what is occurring. It is simpler for the investigator to mix into the background compared to participantsurveillance, which should mean people act more naturally. It ought to have better reliability than participant observation since the research is less intricate. Some of the other basic points of merits are:

a. Fewer chances of prejudices hence more objectivity in research
b. Fewer chances of unnatural behavior or ostentation by studied people
c. No chance for the development of a soft corner on the part of the researcher
d. No double role as a participating member of the group and a researcher--no *Role Conflict*
e. Better use of time and resources

6.4Genealogical Methods: Tracing Ancestry

Anthropology is a practical discipline for the study of human beings in all their cultural diversities. As such it comprises the study of human culture, humanoid evolution, the archaeological record, language, etc., the relationship between humans and their environment, and cultural modes of being as these differ in time and space. In conducting anthropological research different methods are used. Genealogy is a popular method used mostly in anthropology, nevertheless, in exceptional cases in Sociology and other sciences too. The term Genealogy is derived from the Greek word *genea* which means generation, race, or family, and *logos*, meaning knowledge or science. Genealogy is the study of family origins and history. It is the study of families and the searching (tracing) of their ancestries and antiquity. Genealogists use oral traditions, historical records, genetic analysis, and other records to obtain information about a family and to demonstrate kinship and pedigree lineage or breed of its members. The results are often exhibited in charts or written as narratives. Genealogists compile lists of ancestors, which they arrange in pedigree charts or other written forms. Hence it can be said that genealogy endeavors to trace ancestry, the science of studying family history. The term pedigree comes from the Latin *pes* (foot) and *grus* (crane) and is derived from a sign resembling a crane's foot, used to indicate lines of descent in early West European genealogies. Chart pedigrees, familiar to most people from school history books, include arrow shapes, and parallel lines.

The search for family history is probable to be molded by numerous inspirations, including the desire to carve out a place for one's family in the larger historical picture, a sense of responsibility to preserve the past for future generations, and a sense of self-satisfaction in accurate storytelling. Various scholars make difference between genealogy and family history, limiting

genealogy to an account of kinship while using family history to denote the provision of additional details about lives and historical context. According to Scott and Marshall (2014) *genealogy* is the descent of persons from ancestors in a diagram or table illustrating this. In anthropology, the genealogical method was conceived by prominent British anthropologist W.H.R. Rivers. He described genealogy most fully after which it became a customary and standard method in social anthropology. In 1910 he claimed that the primary purpose of the genealogical method was to improve the analysis of a social organization, i.e. the concrete actuality of interpersonal relations and living arrangements. This method required extensive interviewing of named individuals to:

a. Amass vital statistics among a non-literate population and
b. Record their pedigrees, which reflected rights and responsibilities relating primarily to descent, succession, and inheritance.

A closely associated term with genealogical studies is the term lineage which means an ancestry or a family tree. Hoebel (1954) defined lineage as a protractedone-sidedaffinity group descended from a known ancestor or founder, who ordinarily lived not more than five or six generations back. He, in the case of the patrilineages, or she, in the case of the patrilineages, is a real person and not a mythological or legendary figure. Grounded on the study of lineage, genealogical studies moved in development. Within the ancient western social orders, the central point of genealogy was on family relationships and the descent of rulers and nobles, regularly contending or illustrating the legitimateness of claims to power and riches. The term frequently overlapped with heraldry, in which the family line of royalty was reflected in their coats of arms. Many claimed noble ancestries are considered fabrications by modern scholars, such as Anglo-Saxon chronicles that traced the ancestry of several English kings to the god. The same condition prevailed in pre-republican Nepal (before 2006) where the Shah Dynasty kings and the Rana oligarchs interface their family line of ancestry with the chivalrous Rajput warriors of the Rajasthan state of India. The Shah king was claimed to be an incarnation of the Hindu god *Vishnu*the universal protector.

Withstood by the standards of their disciplines genealogists characteristically follow their ancestry and their spouses. Proficient genealogists may moreover conduct research for others, publish books on genealogical strategies, teach, or work for companies that provide software or online databases. They attempt to understand not fair where and when individuals lived, but moreover their lifestyles, histories, and inspirations. This regularly requires—or leads to—knowledge of old-fashioned laws, migration patterns, old political boundaries, and historical social conditions.Depending on the setting, genealogists concentrate on a specific group, e.g. a clan; a specific surname, such as in a one-

name study; a small community, e.g. a single town or provincial community, such as in a one-place study; or a specific, frequently celebrated individual. The strategy was utilized, alongside censuses and settlement plans, in field research for classical monographs on the *Todastribe*(1906)by W.R.H. Rivers, *Tallensi* (1945) by Meyer Fortes, and *Tikopia*(1967)byRaymond Firth, *Ndembu tribe*(1957) by Victor Turner, and *Sinhalas ethnic group* (1960) by Edmund Leach among others. A further dimension was added by anthropologist Robin Fox (1978) to the method by showing that, since ancestry is a cultural form, concern needs to be taken that names are brought forward by local practice. Noticeable researchers like Alan Barnard and Anthony Good (1984) added extra specialized modifications to make certain that no patrilineal predisposition affects the use of the genealogical method.In Sociology, Michel Foucault's work 'The History of Sexuality, in specific, was hailed for its exhibit of what the genealogical method may offer to gender studies—although numerous theorists misidentified a straightforward reversal of chronology for Foucault's more fundamental demand that ontological thought is surrendered in favor of a negative concept of getting to be. In any case, a few anthropologists have endeavored to understand the implications of Foucault's project for the analysis of institutional and discursive histories within the colonial setting, paying specific attention to the organization of populations, the institution of new educational systems, juridical rationalization, and shapes of both public morality and estimation that colonial regime implemented.

Utilities of Genealogical Study

The genealogical method is useful in ethnic and ethnological studies. This method helps provide information on festivals, rituals, and kinship of diverse ethnic groups. It helps trace the history of any ethnic or caste groups with a focus on questions like where they migrated, what is their family history, and how their family tree can be constructed? Nevertheless, in the present, the significance of the genealogical techniqueinflatesoutside the specified realm of kinship studies yet it has been ignored by anthropologists who do not work in kin-structured societies. Hence it provided the foundation of a kind of structural demography in anthropology as advocated by French anthropologist Lévi-Strauss. This aims at a mathematical expression of the relationship between the functioning and permanence of social structure and the actual size of the population. It is based on the buildup of individualized demographic and social data and the charting of household surveys, pedigrees, and mapping residences.

The genealogical technique has been castoff in contemporary urban anthropology where it is often pooled with ego-centered network analysis. It has also been foundational in studies of the migration of ethnic groups to the United States. The most striking has been its application in medical anthropology. Thus,

for example, among certain groups of New Guinea highlanders, the disease kuru was proved not to be hereditary, as first thought, but associated with the spread of cannibalism throughout their territory. Anthropologists have moreover used the genealogical method in AIDS research in Africa. Undoubtedly, the nature and issues experienced in these cases harshly reverberate W.R.H. Rivers' concerns when he first confronted Melanesian depopulation and mysterious sicknesses at the turn of the twentieth century, the setting in which he first started to develop the genealogical strategy. In present-day times, family history became broader, with commoners as well as nobility investigating and maintaining their family trees. The same tendency exists in present-day Nepal too where diverse caste and ethnic groups are tracing their genealogical descent. In the 21st century with the popularity of the Internet, the number of resources readily accessible by genealogists has unfathomably increased, resulting in a sudden increase of interest in the subject.

Genealogical Research Process

Genealogical research is a methodical study. Nevertheless, it is a multifacetedprocedure that uses historical records and occasionally genetic analysis to validate kinship. Dependable conclusions are based on the quality of sources, ideally original records, the information within those sources, ideally primary or first-hand information, and the evidence that can be drawn, directly or indirectly, from that information. On many occasions, genealogists must skillfully assemble indirect or circumstantial evidence to build a case for identity and kinship. All evidence and conclusions, together with the documentation that supports them, are then assembled to create a cohesive genealogy or family history. Historical, social, and family background is necessary to achieve the correct identification of individuals and relationships. Source citation is also important when conducting genealogical research. Genealogists begin their research by collecting family documents and stories. This creates a foundation for documentary research, which involves examining and evaluating historical records for evidence about ancestors and other relatives, their kinship ties, and the events that occurred in their lives. As a rule, genealogists begin with the present and work backward in time. To keep track of amassed material, household group sheets and pedigree graphs are used. Previously writtenby hand, these can now be generated by genealogical software.

Methods of Genealogical Study

The genealogical investigation is a logical study, however, there are crucial issues embedded with this methodology. It is a multifacetedprocedure that uses historical records and now and then chromosomalgenetic analysis to illustrate kinship. Dependable conclusions are based on the quality of sources, ideally

unique records, the data inside those sources, ideally primary or first-hand information, and the evidence that can be drawn, directly or indirectly, from that information. On numerous occasions, genealogists must skillfully collect indirect or circumstantial evidence and technicalities to construct a case for identity and kinship. All evidence and conclusions, together with the documentation that underpins them, are at that point collected to form a cohesive genealogy or family history. Broadly, genealogical methods are related to technicalities, hence certain precautions need to be adopted before discussing the strategies of genealogical methods namely…

a. Acquaintance with the native language is anobligation.
b. Cautious in understanding the kinship system and terms denoting familial relationships like uncle, auntie, grandfather, grandfather, and other single words signifying multiple meanings.
c. Note down the name of the siblings of respondents.
d. Information impact of Socio-cultural change in one group.

The methods of genealogical studies are as follows:

- **Genetic analysis**

Since anindividual's DNA comprises information that has been handed down abstemiously unaltered from initial ancestors, analysis of DNA is sometimes used for genealogical research. Two DNA types are of specific interest: mitochondrial DNA that we all possess and that is passed down with only minor transformations or mutations through the matrilineal (direct female) line; and the Y-chromosome, present only in males, which is passed down only minor changes (mutations) through the patrilineal (direct male) line. A genealogical DNA test permits two individuals to find the likelihood that they are, or are not, related within an estimated number of generations. Individual genetic test results are collected in databases to coordinate and match people descended from a moderately recent common ancestor. For illustration, the Molecular Genealogy Research Project. These tests are constrained to either the patrilineal or the matrilineal line.

- **Data sharing among researchers**

In the present age of computers, all-out genealogy software programs can send out information about people and their connections in a consistent arrangement called GEDCOM. In that format, it can be shared with other genealogists, added to online databases, or converted into family websites. Social networking service (SNS) websites permit genealogists to share information and construct their

family trees online. Members can upload their family trees and contact other family historians to fill in gaps in their research study.

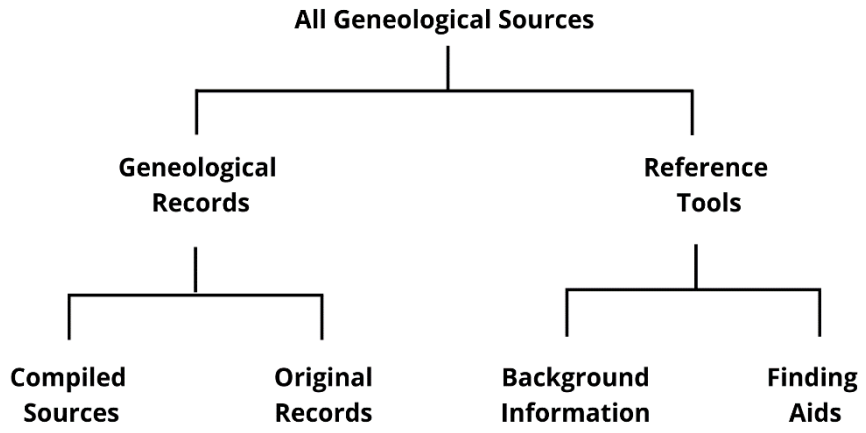
- **Volunteerism**

As a substance of exactness, volunteer endeavors figure imperative in genealogy. These extend from the enormously informal to the exceedingly organized. On the informal side are the numerous prevalent and valuable message boards such as *Rootschat* and mailing records on particular surnames, regions, and other topics. These forums can be utilized to embrace to find relatives, ask for record lookups, obtain research advice, and much more. Various genealogists contribute to freely organized projects, both online and off. These collaborations take different shapes. Some projects prepare name indexes for records, such as probate cases, and publish the lists, either off- or online. These indexes can be utilized as finding aids to discover original records. Other projects decipher (transcribe) the abstract records. Volunteers do record lookups (retrieved information) in their home zones for researchers who are unfit to travel. Those looking for an organized volunteer environment can join one of the thousands of genealogical societies.

- **Sources andrecords in genealogical research**

Genealogists use an assortment of strategies and genealogical sources to conduct their research, including verbal interviews, chronicled records, obituaries, census records, naturalization records, probate records, military records, birth certificates, death certificates, and marriage. Of the genealogical sources, a *primary source* is any record made during the time we are researching - an observer eyewitness account. These sources can take numerous shapes, such as daily papers, letters, diaries, tax records, court archives, church records, or a census. *Secondary sources* are archives and records that were not made at the time when that event happened. For instance, old letters, books, verbal interviews, transcriptions/translations, lists/indexes, and important records for events other than what they were written for. By and large, genealogical sources can be assembled into two divisions, each with two categories. The chart presented below outlines the bond between these four categories.

Figure 6.1: **Categorization of Genealogical Sources**



To begin with, of all, it is essential to review our objective. In case we have got a genealogical objective, we may be selecting genealogical records. For reference objectives, we will want to choose reference tools. After we know which kind of source we need, the following guidelines will assist usto select from these categories of records: (1) compiled records, (2) original records, (3) background data, or (4) finding aids.

There's no substitute for learning about records to choose the best records to search. The more you get about the records used for genealogical research, the more successful you may be able to choose and using them. The primary step to understanding the records used in research is to learn the genealogical classification of records. You'll at that point use that classification to assist you to select appropriate records. You cannot select an appropriate record unless your objective is clearly defined. Currently, genealogists use a wide extend of records in their research. To successfully conduct genealogical research, it is imperative to understand how the records were created, what information is included in them, and how and where to access them.There are two categories of genealogical records: (1) *compiled records, and* (2) *original records*.

Compiled records are accumulated records of people or families of a particular place incorporating history, periodicals, ancestry, memoir, social orders, respectability, and heraldic visitations. Compiled data records are considered auxiliary but can spare research time. It gives family links not effectively found in original archives and offers you the names of others researching your family to assist you to share information and coordinate your work as well as give family history data. Compiled records are organized into two groups: *International sources and Local sources.International sources* may incorporate

people and families from anyplace in the world. They incorporate two record types, family histories, and collections including databases such as Genealogical Records. Illustrations of collections on the Web can be found at Databases Online. Each nation may have comparable collections. *Local sources* are compiled records of people or families of a particular place. The different record types incorporate history, periodicals, ancestry, history, social orders, respectability, and heraldic appearances.

Original records give data about occasions in a person's life. This incorporates birth, marriage, immigration, military service, land purchases, and death. Most moreover report relationships. These records were usually created near the time such an event took place. Based on the data in them, they can be grouped as vital occasions: such as records of births, christenings, marriages, divorce, death, and burial, created by families, governments, churches, or other institutions. Residency records: such as that show where individuals lived. Property proprietorship is like the disposition of real estate and individual property. Occupational records of a business, including military records. Immigration records show the departure, entry, or citizenship of an individual in a country. Civil activities records of public or legitimate transactions such as court records. Institutions record organizations or foundations that care for a fragment of society, such as a school or prison. Special group records interesting to or particularly about religious or social groups. Personal records about a person or family are created particularly by the person. The benefits of original records are that they can identify connections between individuals, give essential data about a particular event, verify the precision of compiled records, provide data not found in compiled sources, and provide biographical details about people.

Broadly, genealogical records provide vital and biographical information on individuals and families. This includes information about vital events, this information goes on your family group records and family pedigree charts like names and relationships, gender, birth, marriages, and deaths, and other events such asmilitary service, buying and selling land, paying taxes, migrating from one place to another, etc.Additional events to be covered are personal characteristics such as age, physical appearance, philosophy of life, social and economic status, latter-day saint ordinances, etc.Other generalrecords that are used in genealogical research incorporate:

- Vital Records
- Birth and death records
- Marriage and divorce records
- Adoption records
- Biographies and biographical profiles (e.g. Who's Who)

- Census records
- Church records (in the context of Christian societies)
- Baptism or christening
- Confirmation
- Bar or bat mitzvah (ceremonies marking a transition into adulthood for young Jews)
- Nuptial/Marriage, Burial/Funeral, or death
- Affiliation/Membership
- Urban directories and telephone directories
- Coroner's reports
- Court records
- Felonious/Criminal records, Civil records
- Logs/Diaries, personal letters, and family Bibles
- Emigration, immigration, and naturalization records
- Hereditary & lineage organization records
- Land and property records, deeds
- Health/Medical records
- Army and conscription records
- Newspaper articles
- Tributes/Obituaries
- Occupational records
- Oral histories
- Passports, Photographs
- Poorhouse, workhouse, almshouse, and asylum records
- School and alumni association records
- Ship passenger lists
- Social Security and pension records
- Tariff records
- Monuments/Tombstones, cemetery records, and funeral home records
- Voter registration records
- Wills and probate records, etc.

In all nations of the world, governments have started keeping records of people to keep track of their citizens. Mainlifetime occasions, such as births, relational unions, and deaths, are frequently archived with a license, permit, or report. Genealogists find these records in local, regional, or national workplaces or archives and extricate data around family connections and reproduce timelines of people's lives. In Nepal (known as *Vansavali*) and many other Asian countries known by different names, genealogy books are used to record the names, family lineage, occupations, and other information about family members, with some books dating back hundreds or even thousands of years. In the eastern

Indian state of Bihar, there is a written tradition of genealogical records among Maithili Brahmins and Karna Kayasthas called *Panjis*, dating to the 12th century. Even today these records are consulted before marriages. In Nepal also there is the famous Vansavali of the ruling dynasty like the Malla, Shah, and Rana oligarchs. Even the common people from different backgrounds have their clan-based Vansavali. Many groups are in the process of *Vansavali* preparation.

Types of Genealogical Information

Genealogists who look to reconstruct the lives of each predecessor (ancestor) consider all chronicled (historical) data to be "genealogical" data. Generally, the basic data required to guarantee the proper recognizable verification of each person are place names, occupations, family names, to begin with, names, and dates. In more detail:

a. Place names
b. Family names
c. Given names
d. Dates
e. Occupations
f. Reliability of sources
g. Knowledge of the informant
h. The motivation of the informant
i. The effect of time
j. Copying and compiling errors
k. Software

6.5Monographic Approach: Case Studies

A case study is an examination of an individual circumstance. The examination may be of a single individual, trade, occasion, or group. The case study technique was initially developed in the field of clinical medicine. It has extended since to other fields to examine key results, either positive or negative, that was received through a specific set of decisions. This permits the subject to be researched with incredible detail, permitting others to gather information from the data displayed. However, in social science, it is usually accepted that the case-study strategy (method) was first presented by Fredrick Le Play in 1829 as a handmaiden to statistics in his studies of householdfinancial plans. The use of case studies for the creation of new theories in social sciences has been further developed by different sociologists like Barney Glaser and Anselm Strauss who displayed their research strategy and methods, Grounded theory in 1967. The popularity of case studies in testing hypotheses has developed only in recent decades. Case studies are gaining popularity in several disciplines. In the

French sociological convention, a case study is called the monographic approach. The beginning of the term case study is related to that of case history, best known in clinical studies such as psychology and medicine. Whether it is called a case study or a monographic approach, the latter, in sociology, is a study of particular cases, comprising a logical scientific character within the sense that this method leads to an in-depth study. If it has depth, it is since this analysis is conducted by paying exceptional attention to totalizing the observation, reconstruction, and examination of the cases under study.

According to Webster`s new collegiate dictionary (1985), the case study method is used in social research, whereby data are collected and studied which portray any phase of a, or complete, the life process of a unit in its various interrelationships and its sociocultural settings. The unit studied may be a person, a social institution, a community, or a nation. In contrast to the statistical method, the case study method gives a more or less continuous picture through the time of the experiences, social forces, and influences to which the unit has been subjected. Young (1982) has defined a case study as a method of exploring and analyzing the life of a social unit-be that unit a person, a family, an institution, a culture group, or even an entire community. It aims to determine the factors that account for the complex behavior patterns of the unit and the relationships of the unit to its surrounding milieu---In other words, through the case study methods, the social researcher attempts to see the variety of factors within a social unit as an integrated whole. Goode and Hatt (1952) defined a case study as a way of organizing social data to preserve the unitary character of the social object being studied.

In general, a case study is a research methodology common in social science. It is based on an in-depth investigation of a single individual, group, or event. Case studies may be descriptive or explanatory. The latter type is used to explore causation to find underlying principles. Rather than using samples and following a rigid protocol (strict set of rules) to examine a limited number of variables, case study methods involve an in-depth, longitudinal (over a long period) examination of a single instance or event: a case. They provide a systematic way of looking at events, collecting data, analyzing information, and reporting the results. As a result, the researcher may gain a sharpened understanding of why the instance happened as it did, and what might become important to look at more extensively in future research. Case studies lend themselves to both generating and testing hypotheses. It is very striking to keep in mind that a case study includes a specific strategy of research. Instead of utilizing large samples and following an inflexible procedure to look at a limited number of variables, case study strategies include an in-depth, longitudinal examination of a single instance or event i.e. a case. A case study provides an orderly way of looking at occasions, collecting information, analyzing data, and announcing the results.

As a result, the researcher picks up a sharpened understanding of why the occurrence happened as it did, and what might become noteworthy to look at more length or in detail in future research. Case studies provide themselves particularly to generating (instead of testing) hypotheses.

As a monographic approach, a case study is a research strategy, an empirical inquiry that investigates a phenomenon within its real-life context. Case study research means single and multiple case studies, that can include quantitative evidence, relies on multiple sources of evidence, and benefit from the prior development of theoretical propositions. Nevertheless, it ought to be noted that case studies should not be confused with qualitative research and they can be based on any mix of quantitative and qualitative evidence. Single-subject research provides the statistical framework for making inferences from quantitative case-study data. This is also reinforced and well-formulated by those who define the case study method as a research approach, situated between concrete data-taking techniques and methodological paradigms. The case study method is a form of qualitative analysis involving the very cautious and comprehensive observation of a person, a situation, or an analysis.

The case study research strategy is an empirical inquiry that examines a contemporary phenomenon inside its real-life setting; when the boundaries between phenomenon and setting are not evident; and in which multiple sources of evidence are used. A case study is done by giving special attention to completeness in observation, reconstruction, and analysis of the cases under study. A case study is done in a way that incorporates the views of the actors in the case under study. The field of anthropology and sociology is associated most strongly with case study research, and during the period leading up to 1935, several problems were raised by researchers in other fields. This coincided with a movement within sociology, to make it more scientific.

Types of Case Study

A case study has diverse types and forms. As a rule of thumb, all of them require a point-by-point and convincing answer based on intensive analysis. The main purpose is to analyze issues and problems within the boundaries of a particular organization, environment, or circumstance. The case study method can be separated into diverse types. The types of case studies can be:

- **Explanatory**
- **Exploratory**
- **Descriptive**

Similarly, the designs can be single- or multiple-case studies and the utilized strategies and methods can be qualitative, quantitative, or both. In any case, the common types of case studies ordinarily embraced in qualitative research are as follows:

a. *Illustrative case study*: An illustrative case study must describe an area; they use one or two cases to explore a situation. Theseaidscomprehend and construe other data, particularly when researchers have the motive to believe that readers know too little about a program. This case study serves to make the unfamiliar familiar, and give readers a common language about the topic. The chosen site should typify important variations and contain a small number of cases to sustain readers' interest.
b. *Exploratory case study*: An exploratory case study abridges the case study process: researchers may accept them before executing a large-scale investigation. Where substantialambiguity exists about program operations, goals, and results, the exploratory case study helps identify questions, select measurement constructs, and develop measures; they also serve to safeguard investment in larger studies.
c. *Critical instance case study*: The decisive example case study examines one or a few sites for one of two purposes. A very recurrent application includes the scrutiny of a situation of sole interest, with little or no interest in generalizability. Second, rarer, applications necessitate calling into question a highly generalized or universal declaration and testing it by examining one instance. This method particularly suits answering cause-and-effect questions about the instance of concern. Inadequate specification of the evaluation question forms the most serious pitfall in this type of study. The suitable application of the decisive example case study significantly involves inquiring about the underlying concerns in a request.
d. *Program implementation case study*: A program solicitation case study helps distinguish whether implementation complies with intent. This case study may also prove useful when concern exists about implementation problems. Extensive, longitudinal reports of what has happened over time can set a context for interpreting a finding of implementation variability. In either case, researchers aim for generalization and must carefully negotiate the evaluation questions with their customers.
e. *Program effects case study*: Program effects case studies can settle on the influence of programs and deliverimplications about details for attainment or failure. As with the program implementation case study, the evaluation questions usually require generalizability, and, for a highly diverse program, it may become difficult to answer the questions

adequately and retain a manageable number of sites. But methodological solutions to this problem exist. One approach involves first conducting the case study in sites chosen for their representativeness, then verifying these findings through examination of administrative data, prior reports, or a survey. Another solution involves using other methods first. After identifying findings of specific interest, researchers may then implement case studies in selected sites to maximize the usefulness of the information.

f. *Cumulative case study*: The cumulative case study totals information from numerousplaces collected at different times. The cumulative case study can have a retrospective focus, collecting information across studies done in the past, or a prospective outlook, structuring a series of investigations for different times in the future. Retrospective cumulation allows generalization without the cost and time of conducting numerous new case studies; prospective cumulation also allows generalization without unmanageably large numbers of cases in process at any one time. The techniques for ensuring sufficient comparability and quality and for aggregating the information constitute the "cumulative" part of the methodology. Features of the cumulative case study include the case survey method (used as a means of aggregating findings) and backfill techniques. Opinions vary as to the credibility of cumulative case studies for answering program implementation and effects questions. One authority notes that publication biases may favor programs that seem to work, which could lead to a misleading positive view (Berger, 1983).

Characteristics of Case Study Methods

The case study does not emphasize any preciseapproaches for informationgathering or data analysis. Any method of gathering data from testing to interviewing can be used in a case study, although certain techniques are used more than others (Webster, 1985). This study is concerned with qualitative case study research as opposed to quantitative because for two reasons. First, qualitative case study research approaches a problem of practice from a holistic perspective to gain an in-depth understanding of the situation and its meaning for those involved. The interest is in the process rather than outcomes, in context rather than a specific variable, and in discovery rather than in conformation. Such insights into aspects of educational practice can have a direct influence on policy, practice, and future research. Second, most case studies are qualitative and hypothesis-generating rather than quantitative and hypothesis-testing. The major characteristics of the case study method are as follows:

a. A comprehensive study of a unit in the holistic form: One of the foremost characteristics of the case study method is that the social unit which is picked up for study is comprehensively studied in its entirety. All aspect is deeply and thoroughly studied. Various factors which act or interact with that unit are carefully studied. In the case study method, both qualitative, as well as quantitative aspects, are given full weight and full consideration is given to the family, group, and community life of the individual, group, or even of the community.
b. Case study's method another characteristic is that it studies both 'what and why. In the first instance, the researcher tries to describe the complex behavioral patterns of a unit. After that has been done, the researcher's next attempt is to discover such factors which will rationally account for them. The researcher aims to describe as well as explain the units which are studied. The researcher also tries to explain the behavior of the unit in social surroundings and setup.
c. In a case study, the whole approach is not quantitative but qualitative. The aim is to go deep into the life of the person concerned. However, this method approach of study is direct and neither abstract nor indirect.
d. In the case study method, the researcher can pick up for his study only one social unit. The main effort is to know the mutual inter-relationship of several factors.
e. In this method, the researcher tries to organize the individual unit into an integrated whole in a manner that its integrity and wholesomeness can be preserved. All unifying bonds are created so that diverse elements are brought together in a well-knit unit system. Here the individual, family, institution, or group is considered a unified whole. All units are integrated and so linked that the cases become an integrated whole.
f. Intensive study of the problem: The case study is an intensive study which is a qualitative analysis involving the very careful and complete observation of a person, a situation or an institution or a community, or society as a whole.
g. Individual study: The case study is an individual study of any single component. A case study involves a study of a specific unit. Somewhat than using big samples and ensuing a rigid protocol to inspect a limited number of variables, case study methods involve an in-depth, longitudinal examination of a single instance or event: a case. A case study provides a systematic way of looking at events, collecting data, analyzing information, and reporting the results of only a loneor single unit….may be an individual, community, or any single item.
h. Multiple using Patterns of case study method
    - The type of research query: typically to answer questions like how or why.

- The extent of control over behavioral events: when an investigator has little/no possibility to control the events.
- General circumstances of the phenomenon to be studied: a contemporary phenomenon in a real-life context.

i. The case study is an empirical inquiry, in which the focus is on a contemporary phenomenon within its real-life context, and boundaries between the phenomenon and its context are not evident.
j. Suitable for studying complex social phenomena: A case study is extremely appropriate for studying complex social phenomena especially intricate social and cultural issues embedded with society and culture.
k. Procedural characteristics in the situation: There are different procedural characteristics in the case study situation which include many variables of interest; multiple sources of evidence; theoretical propositions to guide the collection and analysis of data.

Case Selection in Case Study Method

The case study is mainly functional for generating hypotheses, whereas other methods are more suitable for hypothesis testing and theory building. In this case study method after the selection of a case for a study, investigatorsfrequently use information-oriented sampling, as opposed to random sampling owing to the reason that an average case is often not the richest in information. Extreme or uncharacteristic (untypical) cases make known more information because they set in motion more basic mechanisms and more actors in the situation studied. It is often more vital to make clear the deeper causes behind a given problem and its consequences than to describe the symptoms of the problem and how regularly they occur. Random samples emphasizing representativeness will seldom be able to produce this kind of insight; it is more appropriate to select a few cases chosen for their validity, but this isn't always the case.Three types of information-oriented cases may be distinguished:

- Critical cases
- Extreme or deviant cases
- Paradigmatic cases

Renowned scholar Yin (2005) recommended that investigatorsmustchoose whether to do single-case or multiple-case studies and chose to keep the case holistic or have embedded sub-cases. This two-by-two mixture can generate four basic designs for case studies.

Data Collection and Analysis in Case Studies

Sensible case studies use differing investigation devices to extend validity and legitimacy. They are used to investigate causation to discover basic principles and standards. A case study involves collecting in-depth information about the individual entity through the use of several data collection strategies. Interviews and observation are two of the foremost common forms of data collection methods used. Case study research regularly incorporates numerous information collection strategies/techniques and data are collected from numerous sources. To accumulate the required data, the researcher adopts a balanced strategy while proceeding with fieldwork keeping in mind the objectives of the research venture. Data collection procedures incorporate methods such as interviews, personal/individual interviews, psychometric tests, documented archival records, focus group interviews, observations (direct and participant), questionnaires, and significant documents. The use of multiple data collection methods and sources fortifies the validity of results and empowers diverse interpretations and implications to be included in data analysis. This can be called *triangulation*. In the case of study research, the information collected is ordinarily qualitative (words, meanings, views) but can moreover be quantitative (descriptive numbers, tables).

Qualitative data analysis may be used in theory building and theory testing. Theory building may use the *grounded theory approach*. Theory testing regularly includes pattern matching. This is pedestaled on the comparison of anticipated outcomes with observed data. Subjective qualitative data analysis is more often than not exceedingly iterative. Visual shows of qualitative data using matrices (classifications of information utilizing two or more measurement dimensions) may be used to find associations between the coded segments. Data analysis may be undertaken within a *case and also between cases* in multiple case study research. Quantitative data is regularly displayed in a clear and descriptive, tabular frame and used to highlight characteristics of case study organizations and interviewees.

Advantages (Merits) and Disadvantages (Demerits) of Case Study Method

The strengths or advantages of case studies are that it provides point-by-point detailed (wealthy qualitative) data. It provides understanding for advanced research, allowing examination of something else's unreasonable or impractical (unethical) situations. The advantages of the case study method are that it turns observations into practical information, offers convincing and provable information from direct observations of the individual entity involved, and usesseveral distinctive research methodologies. Conversely, one enormous drawback (disadvantage) of the case study method it is regularly troublesome to generalize findings from the individual studied to other individuals. In case we are interested in revealing cause-and-effect connections between two variables,

we use the correlational method. It can impact factors in the data. Each individual has their insentient inclination and takes longer to examine the data, thus can be an unproductiveprocedure, necessitates a trivial sample size to be operational, and could be a labor-intensive strategy of data collection. The detailed advantages and disadvantages of the case study method are as follows:

Advantages (Merits)

The case study is an advantageous method. It does exceptionally well at fetching a comprehension of a multifacetedsubject or object and can widen experience or enhancethe powerof what is previouslyidentified through previous research. Case studies emphasize detailed contextual analysis of a limited number of events or conditions and their relationships. Researchers have used the case study research method for many years across a variety of disciplines. Social scientists, in particular, have made wide use of this qualitative research method to examine contemporary real-life situations and provide the basis for the application of ideas and extension of methods. In broad-spectrum case study is a very practical method and its advantages are as follows:

- A case study helps in the formulation of a hypothesis
- An intensive study is possible through a case study
- Relevant to all parties involved
- Helps in understanding behavior pattern
- Study of subjective aspects
- Turns supposition/opinions into reality (fact)
- No need for sampling
- Helpful in studying social changes
- Helps in comparative studies
- Helpful in removing defects in research
- Increases knowledge
- Comprehensive study possible

Disadvantages (Demerits)

If methods denote aninvestigationprocedure whose process is decided by prearrangedmaneuvers, at that point the case study cannot be defined as such. For, if the case study can include direct observation, the semi-structured interview, life history, etc., their choice is not pre-determined but made according to the requirements implied in the capture and remaking (reconstruction) of a given social fact by a single case, in its totality and profundity (depth). Critics of the case study method accept that the study of a small number of cases can offer no grounds for establishing the reliability or generality of findings. Others feel that the intense introduction to the study of

the case biases the findings. Some terminate case study research as beneficial only as an exploratory tool.In wide-ranging, the difficulties in the operation of the case study method are as follows:

- Risk of subjectivity and a false sense of prestige by the researcher about his conclusions.
- Comparison is not possible as the researcher studies human beings who are quite different from each other.
- No method of checking data since a case study is whollybased on a single unit.
- Time-consuming as it is conducted for a very long period.
- Ad hocism (temporary). There is no method of picking up the case. It is left to the individual researcher to pick up a case but in research, adhocism does not work.
- Less reliability of source materials as a case study is prepared with the help of diaries, memories, personal papers, records of the persons concerned, etc.
- False generalization due to the selection of only a single unit for the study.
- Possibility of the wrong conclusion as the prospect exists that the conclusions drawn based on one case study may be wrong or generalization may not be possible.
- Too much dependency on memory as an individual's case study is done by asking questions and interviewing hence the respondents' memory should be sharp to narrate the past account.
- Time gap because the respondent may forget his past accounts owing to the time gap of asking questions to the researcher.
- Over simple answers and chances of avoidance by respondents by saying 'I have forgotten.
- Cannot be used in the milieu of huge societies.

Notwithstanding the weakness of the case study method, investigatorsendureusing the case study research technique with accomplishment in prudentlyscheduled and fashioned studies of real-life situations, issues, and difficulties. Information on case studies from numerous disciplines standsextensively useful.

6.6 Life Cycle Studies as Life Histories

The wordlifetimeor life history has specified numerous connotations in numerousmethodical areas. It can allude to anassortment of approaches, techniques, and procedures that are used for conducting qualitative interviews,

particularly within the areas of sociology and anthropology. Jary and Jary (2005) characterize the life history method as a sociological historical or psychological account produced from face-to-face interviews or personal documents such as diaries or letters. In anthropology, life history theory is used to understand the physiology and behavior of an organism based on key maturation and regenerative (reproductive) characteristics that characterize the life course. The relative success of an individual is examined in its diverse life stages, including the age of weaning, time of sexual maturation, age of first reproduction, etc. In sociological and anthropological research, a life history indicates the by and large picture of the informant's or interviewee's life. The purpose of the interview is to be able to depict what it is like to be this particular person, that's, the one being interviewed. In biology, the life history of an organism is sometimes used to refer to the reproductive cycle of animals and plants. However, many biologists strongly prefer the term life cycle for such events and reserve the term life history strictly for the study of life-history evolution, the co-evolution of the traits of age-specific survivorship probability, age at first reproduction, reproductive frequency, etc.

In medicine, a life history may denote a wide-rangingfitnessvaluation or standard medical history. In looking to classifyassured health patterns, the interviewer may conduct a thorough interview. This form of an interview can be utilized to find various kinds of sources for effects on the body and general health. Life history theory is an analytic method of sociobiology for understanding reproductive behaviors in animals and people. Life history theory studies the schedule and duration of key events in an individual’s lifetime. These events, notably, development, age of sexual maturity, first reproduction, number of offspring and level of investment, and death, depending on individual opportunities and caliber. Life history characteristics are traits that affect the life table of an individual and can be imagined as various investments at various levels. The key goal of life-history theory is to understand the variation in such life-history strategies. This knowledge can be used to construct models to predict what kinds of traits will be favored in different situations and environments. Life history theory has provided new perspectives in understanding many aspects of human behavior and progress.

The life history study method was initially used whilequestioning native indigenous Red Indian peoples of America such as native American leaders. One questioned them, and the subjects were asked to describe their lives as such, and what it was like to be that particular person. The purpose of the interview was to capture a living picture of near to extinct or disappearing people/ways of life. Afterward, the method was used to interview criminals and prostitutes in Chicago. the subjects were asked to articulate their lives. The interviewers also observed social- and police records, and the society in general in which the

subject survived. The outcome was anaccount in which one could read about (i) Chicago at that specific time; (ii) how the subject observed his/her own life (i.e. `how it was like to be this particular person) and (iii) how society looked upon the subject what the consequence of this was for that particular person----i.e. social work/-help, incarceration, etc. The most famous use of life history in connection with the Chicago school was in connection with the Polish peasant study by W.I Thomas and Florian Znaniecki in 1918. They employed a Polish emigrant to write his own life story, which they then interpreted and analyzed. The approach fell later in disregard, as quantitative methods gained the upper hand in sociology. Only in the 1970s was the method revived, mainly through the efforts of Daniel Bertaux and Paul Thompson who started doing life history research in such professions as bakers (baking and selling bread) or fishermen.

Techniques of Life History Study

The person involved in the case study must be cautious not to ask 'yes' or 'no'queries, but to get the subject to articulate the story of his or her life, in his or her own words. This is why a case study is called the narrative method. It is common practice to begin the interview with the subject's early childhood and to proceed chronologically to the present. Another approach is to ask participants to write their own life stories. This can be done either through competitions or by collecting written life stories written spontaneously.

6.7Mind-reading: Interviews

The interview method of research, typically, involves a face-to-face meeting in which a researcher (interviewer) asks an individual a series of questions. It is like a conversation but different. It is like entering the mind of the people or reading the mind of the respondent. Like a conversation, an interview involves two people talking to one another about something they are interested in. It is a conversation between two or more people (the interviewer and the interviewee) where questions are asked by the interviewer to obtain information from the interviewee. However, an interview is furthermonotonous than a conversation because one person, the interview giver (interviewee), talks more and offers more explanations, while the other person, the interview taker (interviewer), has to listen very carefully to what is being said and ask follow-up questions.

As a scientific process of collecting data, an interview is a course of contact or interface in which the subject or interviewee provides the required information orally in a head-on situation. In a sense, it is an oral questionnaire. In a research situation, it may be seen as an effective, informal, conversation, initiated for a specific purpose as it focuses on certain areas. The main objective of an interview may be the exchange of ideas and experiences and the extraction of

information. It is an intricate and complex act. Hence it is necessary to have a little conversation with the person going to be interviewed. It is necessary to learn about the topic(s) the interviewer wants to discuss. It is necessary to schedule the interview for a time and place that are most convenient for the interviewee, to have them arriveon time, and to dress in a way that will make the interviewee feel comfortable with the interviewer. Making a relationship is a vital part of the beginning of an interview. It is necessary to think about what to do to make the interviewee feel comfortable. This is called establishing rapport.

While conducting an interview both the interviewer and interviewee must listen and respond at the same time. It is necessary to make the interviewee feel comfortable and encourage them to talk about what they are interested in on their terms. For a good interview, it's vital to write up specific questions before interviewing and to think of ways of making the questions specific and flexible. Before going into the interview, it is necessary to take the time to draw up a custom questionnaire. Qualitative analysts use interviews to discover peoples' experiences, perceptions, values, and opinions. Such interviews can be used for numerous diverse purposes and take numerous distinctive shapes. They can happen over and over a long period or as it were once. They can be brief or long. The common component in all interviews is that interviewer inquires about different individuals and diverse questions on a specific theme. In a perfect world, this takes place with people or groups in face-to-face settings, even though interviews can moreover be done over the phone or the Web. Interviews may be conducted with people or groups. The choice to utilize person, mixed group, or focus group interviews will depend on the purpose of the research and the type of data required. The qualitative research interview seeks to portray the implications of central subjects within the life world of the subjects. Kvale (1996) argues that the main task in interviewing is to understand the meaning of what the interviewees say. A qualitative research interview looks to cover both a factual and a meaning level, though it is as a rule more troublesome to interview on a meaning level.

Interviews are mainlybeneficial for receiving the story behindhand a participant’s experiences. The interviewer can followdetailed information about the topic. For McNamara (1999), interviews may be beneficial as a follow-up to certain respondents to questionnaires, e.g., to further investigate their responses and to make a conversation with a purpose. It is a specialized'chat' between two or more people that can prolong from the informal unstructured exchange at one end of the continuum to the formally structured event at the other. For Kvale (1996), the interview’s persistence is to getimages of the life world of the interviewee concerning interpreting the meaning of the defined phenomena. Benny and Hughes (1956) argue that ideally, the interview is a mutual interview and not a one-way pseudo-conversation in which the researcher draws out

research information by acting out a relationship but without really relating to the speaker.

The associationbetween the interviewer/interviewee and the setting of the interview are also imperativedeliberations in the interviewer's scrutiny of the interview -- the theories underpinning and ring-fencing it, its numerousmethods of practice, and its place in society. There are numerous forms and types of interviews classified according to formality adopted in qualitative research. The interview – formal, informal, structured, semi-structured, and unstructured – is fundamentally integrated into anthropology as a constituent portion of ethnographic practice. Questioners meet and make conversation with their subjects, informants, and respondents. Their answers and the interviewer's consequent activities and advanced questions advise anthropological and sociological works and direct the research. By the by, there are crucial focuses, for illustration, just what precisely is the relationship between the interview and the anthropological text? How clear qualitative analysts are to interview utilizing the methods and strategies, and to what degree do they feed into activities and writings? How experienced are researchers as questioners and interviewees? What, at that point, is the relationship between anthropology and the interview? It is way better to have a few ideas in advance of the interview; what sort of interview the questioner can anticipate so that he can plan accordingly namely:

a. Formal interview
b. Informal interview
c. Key informant interview **(KII)**

(a) Formal Interview

Formal interviews are an implies of collecting information where the data is collected by an interviewer through self-administered preset questions. Interviewers perused the questions prepared before conducting the interview. This one-on-one interview can be much more distinctive than the informal interview. This type is regularly held in a closely observed period and is usually the foremost common interview conducted in a pre-arranged session. The interviewer may anticipate typical personal questions concerning the interviewee’s background and goals, in any case, the interview will incorporate standardized questions which can be pre-arranged. It implies that in a formal interview the interviewer will ask questions that are prepared before the interview session. All the questions will be directed and preset inquired in the same order each time. A formal interview is a strategy of communication or interaction in which the subject or interviewee gives the required data verbally in a face-to-face circumstance. It is additionally called a structured interview. In a sense, it is a verbal or oral questionnaire. In a research circumstance, it may be

seen as an effective, formal, conversation, started for a particular reason because it centers on certain areas. The major intention may be the exchange of thoughts and experiences and bringing out information from the respondent by raising questions in a pre-determined way.

A formal interview or structured interview is a directive interview because all questions to be asked are prearranged. A formal interview (also known as a standardized interview or a researcher-administered pre-determined survey) is a method commonly employed in anthropological research. This approach endeavors to ensure that each interview is presented with the same questions in the same order. This ensures that answers can be dependably collected and that comparisons can be made with confidence between sample subgroups or between different survey periods. Equally,persons and groups may be questionedusing an interview guide encompassing a list of queries, topics, and/or issues that are prepared before the interview or discussion. This list of questions is developed to ensure continuity between the subjects and to help interviewers cover essential topics.

As already stated, formal interviews contain pre-set questions that are asked in the same order every time. It consists of a spoken question-and-answer session between the interviewer and interviewee. However, the presence of an interviewer in this process creates many advantages and disadvantages. Among the advantages are the facts that questions can be clarified for the respondent, and that an interview is guaranteed to be satisfactorily completed and returned. Having guided pre-arranged questions creates no chance of going out of track while asking questions. Where interviews may be conducted by telephone, a potentially wide-ranging sample can be reached. Nevertheless, there are disadvantages too, the disadvantages being that being the guided pre-organized questions, the interviewer is strictly guided by the pre-arranged questions and he can’t ask questions beyond what is written on the piece of interview paper even if it is necessary to ask questions. Hence formal interview method is a rigid technique of data collection.

A formal interview regulates the order in which queries are enquiredto respondents, hence the questions are constantlyrespondedto inasimilarsetting. This is significant for curtailing the influence of context effects, where the responses given to a query can be contingent on the nature of the preceding questions. Formal interviews can also be used as a qualitative research methodology. These types of interviews are highly suited for engaging in respondent or focus group studies in which it would be beneficial to compare/contrast participant responses to answer a research question. For formal qualitative interviews, it is usually necessary for researchers to develop an interview schedule that lists the wording and sequencing of questions. Interview

schedules are sometimes considered a means by which researchers can increase the reliability and credibility of research data.

(b) Informal Interview

Informal interviews are independent or formless unorganized interviews where the interviewer will ask questions to the respondent (interviewee) according to his/her essence depending on the situation. There will be no predesigned questions as in a formal interview. Because of this reason, an informal interview may be also called an unstructured interview. Interviewer and interviewee in this type merelysignifyone-on-one with only oneindividual. These are the utmostunpremeditatedcasual interviews. One can expect to discuss different items, and personal goals, discuss other personal issues and be more of a conversation than a one-way interview. This is the most flexible and tranquiltalkstyle. An informal interview likewisebranded an uncontrolled, unguided, or non-directive interview is one where the interviewer does not follow a list of predetermined questions. The interviewees are encouraged to relate their concrete experiences with no or little direction from the interviewer, to stay on whatever events seem significant to them, to provide their definition of their social situations, and to reveal their opinions and views as they like. Although the series of questions to be asked and the procedure to be followed is decided beforehand, the interviewer is largely free to arrange the form and timing of the questions. He/she can rephrase the questions, modify them and add new questions to his/her list.

Informal interviews are more useful in ethnographic studies which are mainly descriptive where the respondent makes responses freely without any obstacle and the interviewer can ask questions flexibly; without any control, as there are no pre-arranged questions in this type. The interviewers are free to ask whatever questions they feel will result in information appropriate to the purpose and focus of the interview. However, the interviewer should ensure that critical topics to be covered are not missed. For use with both people and groups, the informal interview is a casual conversation and this adaptable strategy is frequently used in juxtaposition or conjunction with participant observation. In this method, the questions arise from the common conversation. It is an exceedingly responsive method and is valuable when researchers can stay within the setting or settings over a long period. Ordinarily, it includes more than a single interview, and these interviews are structuredand constructedby one another. The individualized inquiriesoffer help shape importantrelationships (rapport) with the subject so that the data accumulated is both increasingly inclusive and dependable.

(c) Key Informant Interviews (KII)

A key informant interview is a process of selecting a few selected key people trusted enough to provide relevant information on the research issues. Key informant interviews comprisequestioning a select group of persons who are probable to deliverthe required information, ideas, and insights on a particular subject. Two characteristics of key informant interviews requisitedistinctive revealing namely…

1. Foremost, merely a small size of selected respondents are interviewed because they possess vital information or ideas that can be asked by the interviewer. Depending on the nature and scope of an inquiry, the interviewer identifies appropriate groups from which the key informants are drawn and then selects a few individuals from each group. The number of key informants usually ranges from 15 to 35. Such interviews should not, however, be confused with formal and informal surveys in which a relatively large number of people are interviewed.
2. Another, key informant interviews are qualitative interviews that are conducted using interview guides that list the topics and issues to be covered during a session. The interviewer frames the actual questions in the course of the interviews. The atmosphere in these interviews is informal, analogous to dialogue or conversation among acquaintances. The interviewer elegantly looks into informants to draw out more information and takes highly structured notes, which are developed later. If all the relevant items are not covered in a session, the interviewer goes back to the key informant. It is the unstructured nature of the interviews that invests them with distinctconnotations and significance.

Key Informant Interviews are widely used in qualitative research. Even though key informant interviews are extensively carried out in development settings, the quality and nature of the information they generate remain suspicious for a variety of reasons. For example, if key informants are not carefully selected the whole research process may go off track. Likewise, if interview guides are not prepared in advance then the researcher may not be able to draw adequate and relevant data from the respondents. If questions are inappropriately worded and uncomfortably or awkwardly asked, then the researcher may not be able to get the proper support of the key informants consequently leading to incomplete or inappropriate answers. Hence it ought to be remembered that the responses should be properly recorded and systematically analyzed. And above all, the findings should be satisfactorily verified. If not, this potentially useful and flexible method of data collection becomes a poorly planned activity generating information of uncertain value and low reliability.

Relevance of Key Informant Interviews in Social Research

Key informant interviews are appropriate for generating information and ideas in many different situations, mainly the following:

1. When vital information is to be collected from people apart from the actively studied group. The key informants are the specialists or experts in their field and hence possess a better knowledge of the concerned research topic.
2. A key informant interview is relevant once general expressive information is ample for decision-making. Such information may be pertinent to organizations and institutions, socioeconomic conditions of an area (e.g., village, community, or city), or the general characteristics of the target populations (e.g., their occupations, religion, values, and beliefs). General, descriptive information is particularly important in project and program planning and later in conducting evaluations.
3. A key informant interview is necessary for the situation when a deep understanding of the primaryinspirations and attitudes of a target populace is required. Key informant interviews can assist settle on not only what people do but why they do it. Such interviews are excellent for documenting people's reasons for their behavior and people's understanding or misunderstanding of issues. For example, well-designed key informant interviews can reveal local attitudes toward squatters' (illegal settlers) problems, family planning, community health, women's programs, and natural resources issues information that is necessary to plan effective interventions in those areas. Based on the interviews conducted with a few key informants, an investigator can easily discover answers to the questions.

Efficacies of Key Informant Interviews

Key informant interviews are qualitative in-depth interviews with people who know what is going on inside the community. The key utility of key informant interview is that it helps to assemble quality and supposedly authentic information from a wide extend of people—including community pioneers, specialists, or residents—who have first-hand data about the community. Other efficacies of key informant interviews are as follows:

1. Key informant interviews can help conduct an in-depth, study of the topic. For instance, key informant interviews can be enormously useful in interpreting diverse data for specific inquiries.
2. Interviews with selected key informants can put light on the factors that explain the behaviors of the people studied.
3. The primary purpose of the study is to generate suggestions and recommendations by drawing appropriate information from the carefully

selected informants. In many cases, the prime reason for a key informant interview is to help solve a problem faced by a researcher dealing with his research issues by taking out pertinent information and that to set practical recommendations.

4. Key informant interviews may be extremely useful whileinitial studies are required for the design of aninclusive quantitative study. In the groundwork for survey questionnaires, key informant interviews can assistoutline the parameters of the study. The scope of data collection, the choice of queries, and the structure of questionnaires can be developed grounded on these interviews.

Advantages (Merits) and Disadvantages (Demerits) of Key Informant Interviews

Like other methods in research activities, key informant interviews have different advantages (merits) and disadvantages (demerits). The major advantages (merits) are as follows:

Advantages (Merits)

1. In key informant interviews the reason that information comes directly from knowledgeable people, it is easy to collect valuable data and insight that cannot be obtained with other methods.
2. For key informant interviews only the carefully selected knowledgeable and well-informed informants or *stool pigeons* (easy targets, the people, who can simply provide information).
3. Key informants canprovide confidential data that would not be revealed in other situations. They may tell of incidents, local happenings, or conditions that explain implementation problems.
4. Key informant interviews provide flexibility to explore new ideas and issues that had not been anticipated in planning the study but that are relevant to its purpose.
5. In the process of conducting key informant interviews it is by and large easy to find people with the necessary skills to conduct key informant interviews for the reason that in every sector some well-informed key person can be traced, likewise, most social scientists acquire the professional training and experience required.
6. In social science research methods, key informant interviews are among the cheapest or the least expensive of all. A researcher can carry out two or three interviews a day at a very minimum cost, needing little support, possibly a translator (if necessary), or very least logistics. A practical study can sometimes be designed based on a dozen interviews.

Disadvantages (Demerits)

1. Key informant interview is technically an imperfect method because although key informant interviews are widely conducted, the quality and nature of the information they generate remain doubtful for a variety of reasons. For example, key informants may not be carefully selected in key informant interviews.
2. The reason is that key informant interviews give justa very limited base for quantification, they are scarcely ever appropriate when quantitative data are needed. Decision-makers often expect accurate, statistical data with which to design a project or monitor its progress. In such conditions, key informant interviews cannot be used without survey-based data.
3. Interview guides not prepared in advance with adequate preparation may create a great hindrance in collecting accurate data.
4. In many key informant interviews, questions are incorrectly and inappropriately phrased and inelegantly asked. The responses are not properly recorded and systematically analyzed. And above all, the findings are not satisfactorily verified. Because of this, a potentially useful and versatile method of data collection becomes a poorly planned activity generating information of uncertain value and low credibility.
5. Conclusions can be unfair if the informants are not cautiously selected. One common error, especially when interviewers are not familiar with the local conditions, is to select informants based on their social and economic standing.
6. In key informant interviews the most vital thing is that when just a few people (fewer than 15) are interviewed, it may be complicated and problematic to demonstrate the validity of the findings. It is also not easy to demonstrate that the interviewees are, in fact, knowledgeable and informed and that they are representative of their friends or peers in their information and recommendations.
7. Information resulting from key informant interviews is at risk of interviewer biases. For instance, the interviewer picks and chooses up information and ideas that back up his/ her predetermined ideas, gives more credibility to the views of rich and powerful elites than to those from lower socio-economic strata, or acts in response more to dramatic or romanticized colorful descriptions and discriminating selective data than to abstract ideas and genuine explanations. Hence investigators must become well-known for these drawbacks.

6.8Museum Study as Archival Study

Archives are related to libraries or museum collections. It is the records, largely official, dealing with administrative matters. An archival study encompasses the study of past materials. Past documents, residual, preserve documents, and items. The archival study is a very vital method in anthropological study. Anthropologists use different sorts of archives for their studies. The sector of archival study includes the study of traditional items with a long-range impact on the study. Jacob von Rammingen wrote the manuscript of the first known archival manual in 1540. He was an expert on registries (*Registraturen*), the German word for what the future became known as archives (Weidling, 2013). Hence, Rammingen can be considered the father of archival science since this was the earliest published work dealing with that subject. Traditionally, archival studies have involved the study of methods of preserving past items. While generally associated with museums and libraries, the archival study field also can be appropriate for researchers who study private collections archives. Archival research is performed by analyzing studies conducted by other researchers or by looking at historical records, documents, and pieces of evidence, that is records, files, etc. for this reason it is a great source of past materials useful for the current problems studied by existing research. There are diverse merits (advantages) and disadvantages (demerits) of archival study in social sciences subjects. The merits and demerits are as follows:

Advantages (merits) of Archival Research

1. They are the stock of past knowledge helping the present field of information.
2. The researcher cannot introduce changes in participants' behavior hence the data will be genuine.
3. Enormous amounts of data provide a better view of trends, relationships, and outcomes.
4. Often less expensive than other study methods.
5. Often less time-consuming.
6. An easy and handy method to gather data.
7. May be an easy source of past happenings and records.
8. Researchers can often access data through free archives or records databases.

Disadvantages (demerits) of Archival Research

1. The researchers have no control over how data was collected.

2. Previous research may be unreliable.
3. Past data may be unscientific and out of mode.
4. Past data may be invalid and worthless in the present.
5. Important dates may be missing from the records.
6. It may be not easily available.
7. Data may not be arranged in chronological order.

6.9Limitations of Qualitative Research Tools and Techniques

Qualitative research is slightly subjective. However qualitative research is cast-off to signify approaches that are reinforced by a set of hypotheses regarding the way the social world functions. It deduces many of its basic principles from the perspective that there are fundamental differences between the science of the human world and the science of the natural world and consequently needs to use distinctive methods. Here, attention is focused on looking at the world through the eyes of studied objects and upon evolving concepts and theories which are grounded in the collecting data. So, qualitative research is connected with own accounts of the individuals of their attitudes and behavior. The significance of qualitative research consists in setting stress on describing, and understanding complex phenomena. It investigates, for instance, the relationships and patterns among factors or the context in which the activity happens. It is concentrated on understanding the full many-dimensional picture of the subject of investigation.

The approaches of qualitative research differ from the methods of quantitative research. Quantitative methods have the aim of dividing into clearly defined parts, or variables. When a researcher researches an issue that he knows how to quantify, for example, what can be quantified for sure, he may leave out the factors which are crucial to the real understanding of the phenomena under study. The disadvantage of both quantitative, as well as qualitative research, is that they do not always underpin the understanding of multi-dimensional pictures. Qualitative methods are helpful not only in giving rich explanations of complex phenomena, but in creating or evolving theories or conceptual bases, and in proposing hypotheses to clarify the phenomena. Besides, the value of qualitative research consists in the validity of the information received; people are minutely interviewed so that the obtained data would be taken as correct and believable reports of their opinions and experiences. Its major drawback is that a small group of interviewed individuals cannot be taken as representatives.

Rapport building is necessary for qualitative research, but, the process of building rapport often leads to a vague impression of the researcher's identity - for research personnel as well as for groups in qualitative research. Anthropological qualitative methods such as participant observation and informal interviews are often not seen as research tools in the same way as a

questionnaire or survey instrument is. Moreover, anthropological research is of the long term hence researcher's familiarity with the studied group leads to the development of soft corners in the heart, intimacy, and losing or the detaching of shyness. There are different examples of anthropologists marrying and settling in the field area till their fieldwork is completed. This opens up hidden areas to the researcher who is then viewed not as an outsider but as a quasi-insider privy to much more sensitive information than an outsider would ever have. Even those respondents who want to control the anthropologist's access to information and the observations made may find it hard to do so.

Fieldwork is one of the vital parts of both sociological, and anthropological as well as all social sciences research. The psychology of fieldwork is very complex and is embedded in diverse situations. Fieldwork is intellectual labor demanding direct or firsthand observation, recording or documenting what is seen and heard in a meticulous setting, maybe that setting is a busy marketplace of a metropolis or a rural community or a very backward tribal community, or an organization's luxurious interiors or a very backward cannibal savage community. There are different limitations of the field study method for example the field area needs to be fixed and demarcated. It may be vital to determine the theoretical and methodological limitations of the research problem and also should determine what sort of and what type of information is required. Fieldwork is time-consuming and expensive. There may be problems with new locations and rapport maintenance. There exists no guarantee that they will get the required data will be collected from the field by the researcher. Possibilities also remain that while doing fieldwork the researcher may develop a soft (sympathetic) corner towards the studied group which may hamper the data and the objectivity of the whole may be lost.

Qualitative *ethnographic research* is one of the most in-depth research methods possible. As the researcher lives in the research site for a long time - and sees what people are doing as well as what they say they are doing – an ethnographer obtains a deep understanding of the people, the organization, and the broader context within which they work. Ethnographic research is well appropriate for providing information with rich insights into the human, social, cultural, economic, and organizational aspects of human life. But, there exists a tendency for problematic tools in ethnographic interviewing. For example, the informants refuse to cooperate, informants, add strains, and bias to the study.

The use of language, question-asking manner, and conditions in which asked in ethnographic research, all can change the response. Respondents can also give the researcher only a simplified overview of particular cultural phenomena, an idealized model. The ethnographic method is chock-full of limitations. As it is more qualitative, there are different problems in ethnographic fieldwork. For

example, it is a dreadfully challenging task. It places great demands on time and convenience and the practical arrangements, language, and food as risky business. There may be biases of various sorts' viz. observer bias, and androcentric bias (bias towards females). Likewise, there may be a lack of replicability and the data may be unsystematically collected. Psychological disorientation trying to adjust to differences in lifestyles may create culture shock with the confusion over how to behave with a feeling of a loss of old familiar surroundings and ways of doing things, surprise or disgust after realizing some of the features of the new culture.

Another data collection instrument *observation* is highly applicable in that the relatively small size of the group, or on occasion individuals, as well as the long periods spent with them, means that a substantial amount of highly detailed first-hand data can be achieved. The difficulties are understandable for those in favor of a quantitative approach, for the observer what to record. The ultimate report may appear to have more in common with journalism than rigorous, scientific methods. Overt participant observation means that those being studied are aware of the true reason for the researcher's presence (Barnard, Burgess, and Kirby, 2004). This has the considerable disadvantage of ensuring that the subjects do not behave as they normally would hence leading to behavioral changes such as factory workers increasing productivity as a response to increased interest in their work, and deviant gangs putting on extravagant or overgenerous displays to impress their willing audience. In covert observation, the researcher's true identity is unknown to the group throughout the research period.

In participant observation the researcher engages in the group's activities, while in non-participant observation they merely observe, aiming to play as little a part in the group's activities as possible. Overt participant observation involves a researcher being known to the group and engaging in their activities. For many researchers, this approach is more ethically acceptable than covert observation because no deception over their identity and purpose. But, problems with overt observation include the observer effect, where the behavior of those under study may alter due to the presence of the researcher. Covert participant observation involves a researcher secretly becoming part of a group and taking a full part in their lives. This has the advantage of being as close as possible to the natural behavior of the group in their environment, placing the researcher inside the group's value system and being part of their everyday behavior. But, lengthy engagements with a group canalso create the possibility that the observer over-identities with the group, and loses their objective approach to their research. Limitations of covert observation include that the researcher has to become involved in criminal or dangerous activities, particularly where the research is studying a deviant social group. Problems of negotiating and having to act out forms of behavior that the researcher may personally find unethical or distasteful

abhor. The researcher may have to employ a level of dishonesty or deceit since the researcher is essentially lying about the nature of his/her presence within the group. Close friendships are often resulting from connections with members of the group under study and the covert nature of the research can put a tremendous strain on the researcher, both in and out of the fieldwork setting. The problem of *going native*, which refers to the fact that a researcher will cease to be a researcher and will become a full-time group participant, is very dangerous.

In qualitative anthropological research, participant observation is regarded as very prime but it has many disadvantages. For example, the researcher can become influenced by the group under study so there are chances that his research might be in their favor or prejudiced against them. It also depends on whether the researcher is overt or covert, the disadvantages will be different for them. If the observer is doing overt participant observation, then the group under study might alter or modify their behavior accordingly, as people just do not act normal if they know they are being observed. Moreover, if the identity of the researcher is revealed then there could be serious consequences for them. If the researcher is engaged in covert participant observation, then there comes the problem of ethics as the researcher is deceiving the group by not telling them the true purpose of his research.

As a qualitative research method, *genealogy* is the study of families and the searching (tracing) of their lineages and history. Genealogy is the study of family origins and history. Genealogists compile lists of ancestors, which they arrange in pedigree charts or other written forms. The genealogical method is useful in ethnic and ethnological studies and helps trace the history of any ethnic or caste groups with a focus on questions like *where they migrated, what is their family history, how their family tree can be constructed etc.?*Nevertheless, it is a complex process that uses historical records and sometimes genetic analysis to demonstrate kinship. Dependable conclusions are based on the quality of sources, ideally original records, the information within those sources, ideally primary or first-hand information, and the evidence that can be drawn, directly or indirectly, from that information.

On many occasions, genealogists must skillfully assemble indirect or circumstantial evidence to build a case for identity and kinship. All evidence and conclusions, together with the documentation that supports them, are then assembled to create a cohesive *genealogy* or *family history*. Historical, social, and family background is necessary to achievethe correct identification of individuals and relationships. Source citation is also important when conducting genealogical research. Many protective measures need to be adopted before discussing the methods of genealogical methods. For example,familiarity with the native language is a requirement. It is necessary to be cautious in the

understanding of the kinship system and terms denoting familial relationships like uncle, auntie, grandfather, grandfather, and other single words signifying multiple meanings. All these add many limitations to this method.

The *case study* method depicts any phase of or the entire, life process of a unit in its various interrelationships and its cultural settings. The unit studied may be a person, a social institution, a community, or a nation. In contrast to the statistical method, the case study method gives a more or less continuous picture through the time of the experiences, social forces, and influences to which the unit has been subjected. Nevertheless, it ought to be noted that case studies should not be confused with qualitative research and they can be based on any mix of quantitative and qualitative evidence. Single-subject research provides the statistical framework for making inferences from quantitative case-study data. If methods mean a research process whose procedure is decided by predetermined operations, then the case study cannot be defined as such. For, if the case study can include direct observation, the semi-structured interview, life history, etc., their choice is not pre-determined but made according to the requirements implied in the capture and reconstruction of a given social fact by a single case, in its totality and depth. Critics of the case study method believe that the study of a small number of cases can offer no grounds for establishing the reliability or generality of findings. Others feel that the intense introduction to the study of the case biases the findings. Some dismiss case study research as useful only as an exploratory tool. In wide-ranging, the difficulties in the operation of the case study method are that there prevails the danger of subjectivity and the false sense of prestige by the researcher about his conclusions.

There is no method of checking the information because the case study is exclusively done on a single unit. A case study is very laborious as it is conducted for a very long time. There is no method of picking up the case. It is left to the individual researcher to pick up the case but in research, adhocism does not work. There is less reliability of source materials as the case study is prepared with the help of diaries, memories, personal papers, records of the persons concerned, etc. The possibility remains of the wrong conclusion as the prospect exists that the conclusions drawn based on one case study may be wrong or generalization may not be probable. Too much dependency on memory as an individual’s case study is done by asking questions and interviewing hence the respondents’ memory should be sharp to narrate the past account may be a serious limitation of this method.

In social research, a *life history* refers to the overall picture of the informant's or interviewee's life. The purpose of the interview is to be able to portray what it is like to be this specific person, that's, the one being interviewed. In both cases, the one doing the interview ought to watch out not to ask yes or no questions,

but to urge the subject to tell the story of his or her life, in his or her claim words. This can be called the narrative strategy. A life history can be a systematic account of past events which is delivered through the spoken word to an audience who is listening. It is a kind of oral history where an audience is required to listen. A life history case study may provide insights into the social and cultural milieu of the teller, examine the sense-making mechanisms deployed by one individual, and provide information about the history of the larger group in which the interviewee is.

In qualitative research, the *interview* method of research, typically, involves a face-to-face meeting in which a researcher (interviewer) asks an individual a series of questions. It is like a chat (conversation) but different. Like a conversation, an interview involves two people talking to one another about something they are interested in. However, an interview is more one-sided than a conversation because one person, the interview giver (interviewee), talks more and offers more explanations, while the other person, the interview taker (interviewer), has to listen very carefully to what is being said and ask follow-up questions. Formal interviews contain pre-setquestions that are asked in the same order every time. It consists of a spoken question-and-answer session between the interviewer and the interviewee. All the same, the presence of an interviewer in this process creates many advantages and disadvantages. Having guided pre-arranged questions creates no chance of going out of track while asking questions. Where interviews may be conducted by telephone, a potentially wide-ranging sample can be reached. Nevertheless, there are disadvantages too, the disadvantages being that being the guided pre-organized questions, the interviewer is strictly guided by the pre-arranged questions and he can't ask questions beyond what is written on paper even if it is necessary to ask questions. Hence formal interview method is a rigid method of data collection.

An informal interview also termed an uncontrolled, unguided, or non-directive interview is one where the interviewer does not follow a list of predetermined questions. The interviewees are encouraged to relate their concrete experiences with no or little direction from the interviewer, to stay on whatever events seem significant to them, to provide their definition of their social situations, and to reveal their opinions and views as they like. Informal interviews are more useful in ethnographic studies which are descriptive where the respondent's responses are free without any obstacle and the interviewer can ask questions flexibly; without any control as there are no pre-arranged questions in this type. The interviewers are free to ask whatever questions they feel will result in information appropriate to the purpose and focus of the interview but this may result in the interview process going astray and going away from the track. For this reason, the interviewer should ensure that critical topics to be covered are not missed.

A *key informant interview* is a process of selecting of few selected people trusted enough to provide relevant information on the research issues. Key informant interviews are widely used in qualitative research. Even though key informant interviews are extensively carried out in development settings, the quality and nature of the information they generate remain doubtful and distrustful for a variety of reasons. For example, if key informants are not carefully selected the whole research process may go off track. Similarly, if interview guides are not prepared in advance then the researcher may not be able to draw adequate and relevant data from the respondents. If questions are inappropriately worded and uncomfortably or awkwardly asked, then the researcher may not be able to get the proper support of the key informants consequently leading to incomplete or inappropriate answers. Therefore, it ought to be kept in mind that the responses should be properly recorded and systematically analyzed. And above all, the findings should be satisfactorily verified. If not, this potentially useful and flexible method of data collection becomes a poorly planned activity generating information of uncertain value and low reliability.

Although key informant interviews are widely piloted in qualitative research, the quality and nature of the information they generate remain suspect for a variety of reasons. For example, the key informants may not be carefully selected in many key informant interviews, and interview guides not prepared in advance with adequate preparation may create a great hindrance in collecting accurate data. In many key informant interviews, questions are inaptly worded and inelegantly asked. The responses are not properly recorded and systematically analyzed. And above all, the findings are not satisfactorily verified. Because of this, a potentially useful and versatile method of data collection becomes a poorly planned activity generating information of uncertain value and low credibility. Conclusions can be imbalanced if the informants are not thoughtfully selected. One common error, especially when interviewers are not familiar with the local conditions, is to select informants based on their social and economic standing. Key informant interviews give only a very limited basis for quantification, they are scarcely ever appropriate when quantitative data are needed. Decision-makers often expect accurate, statistical data with which to design a project or monitor its progress. In such situations, key informant interviews cannot be used without survey-based data.

In key informant interviews the most fundamental thing is that when only a few people are interviewed, it may be complicated and problematic to demonstrate the validity of the findings. It is not easy to demonstrate that the interviewees are, in fact, knowledgeable and informed and that they are representative of their friends or peers in their information and recommendations. Information derived

from key informant interviews is at risk of interviewer biases. For instance, the interviewer picks up information and ideas that back up his or her predetermined notions, gives more credibility to the views of rich and powerful elites than to those from lower socio-economic strata, or acts in response more to dramatic or romanticized vivid descriptions and discriminating selective data than to abstract ideas and genuine explanations. Therefore, the researcher must become well-known for these drawbacks.

Archival research in qualitative research is performed by analyzing studies conducted by other researchers or by looking at historical records, documents, and evidence, that is records, files, etc., for this reason, it is a great source of past materials useful for the present problems studied by existing researchers. Nevertheless, there are different limitations of archival study mainly in anthropology and also in sociology too. The limitations of the archival study are the researchers have no control over how data was collected. Likewise, the previous research may be unreliable and may be invalid and worthless in the present. Likewise, chances exist that vital data may be missing from the records or maybe not be easily available. Although regarded as scientific, archival researches are also viable to imperfection.

In a nutshell, qualitative tools and techniques are better suited to describe a situation, phenomenon, problem, or event. Using qualitative tools and techniques, the information is gathered through the use of variables measured on a nominal scale-like good, better, satisfactory, poor, etc., or ordinal scale viz. first, second, third, etc. i.e. qualitative measurement scales; if the analysis is done to establish the variation in the situation, phenomenon, or problem without quantifying it. The description of an observed situation, the historical enumeration of events, and an account of different opinions people have about an issue are examples of qualitative research. Mason (2002) asserts that qualitative research is grounded in a philosophical position, which is broadly "interpretive" in the sense that it is concerned about how the social world is interpreted, understood and experienced, or produced. Qualitative researchers seek answers to their questions in the real world. They gather what they see, hear and read from the people and places and events, and activities---their purpose is to learn about some aspects of the social world and to generate new understandings that can be used by that social world.

6.10Mingling Quantitative and Qualitative Research Tools and Techniques

Theoretical points of view, methods, apparatuses, and techniques contrast sharply in qualitative and quantitative studies. Social analysis is more

comparative, subjective, and judgmental in qualitative research than in quantitative and statistical investigations. However, both the quantitative and the qualitative approaches have their shortcomings as well as qualities. Anthropology has begun with customary societies and adopted more qualitative research strategies while sociology has begun with advanced social orders and dealt more with quantitative data, but in due time they explored each other's spaces and have begun making overlapping studies. As of late sociological research has discovered the subjective qualitative strategy. However, an anthropological analysis is more comparative than the sociological one. Both the quantitative and the qualitative approaches have their shortcomings as well as qualities. Yet, in both anthropological and sociological research site selection, rapport building, and fieldwork are necessary.Anthropologists as social scientists, look at cross-cultural differences in social institutions, cultural beliefs, and communication styles. They often search to promote understanding between groups by translating each culture to the other, for instance by spelling out common, taken-for-granted assumptions. Hence while selecting a site for conducting the research, the researcher should consider cross-cultural differences in social institutions, cultural beliefs, and communication styles of the people of the study site. He should think about the feasibility to promote understanding between groups by translating the culture to the other and the probable problems in rapport building and the consequent data collection.

Investigators have traditionally had trouble working collaboratively through qualitative and quantitative research methods and paradigms. They argue why it is essential that researchers move outsideoutmoded devotion and obedience to specificapproaches of inquiry/analysis. There are crucialinstances of conditions that by their very nature need to be studied from a combination of perspectives, using both qualitative and quantitative methods. The accomplishment of research on managing these conditions lies in the collective application of both qualitative and quantitative research perspectives, methods, and tools. In addition, effective research into long-term social and cultural problems requires not only combined research efforts but also longitudinal programs of study, so that the experience of managing chronic conditions can be captured over time. Researchers need to obtain knowledge of a range of research methods in sociology and anthropology. Sociologists usually conduct quantitative research whereas anthropologists typically conduct qualitative research. Hence it is fundamental that they will have to obtain a serious awareness of the theoretical assumptions, problems, and potential mishandling of different methods used in sociological and anthropological studies. Through practical exercises and experience, researchers will gain an understanding of their capacities for the collection and recording of data. Research can be either qualitative or quantitative which is based on the type of information sought through research activity. The qualitative and quantitative classification is based on categories

such as the purpose of the study, measurement criteria of variables, and the analytical process of the data.

The study is subjective or qualitative if the reason of the study is essential to depict a situation, wonder, issue, or occasion, the data is accumulated through the use of variables measured on a nominal scale or ordinal scale i.e. qualitative measurement scales; if the analysis is done to set up the variation within the situation, phenomenon or problem without measuring it. The description of an observed situation, the historical identification of events, and an account of different suppositions individuals have about an issue are illustrations of subjective qualitative research. On the other hand, quantitative research is aninvestigation method that generates statistical data that can be compared and contrasted. It deals directly with numeric forms as data is usually presentedin numeric form and derives from large-scale survey methods. One object of quantitative data is to achieve precision. We got to keep in mind that qualitative and quantitative investigation strategies are not commonly exclusive. In common, while qualitative subjective strategies spin around portraying, understanding, and clarifying social phenomena, quantitative strategies are more approximately clarifying, foreseeing, and confirming them. Qualitative investigation is stranded in a subjective philosophical position, which is largely interpretive in the sense that it is concerned approximately with how the social world is interpreted, understood and experienced, or delivered. Subjective analysts look for answers to their questions within the genuine world. They assemble what they see, hear and read from the people and places and occasions and activities---their purpose is to learn about a few aspects of the social world and to generate new understandings that can be used by that social world (Rossman and Rallis, 1998).

Qualitative and quantitative strategies have their tools and strategies, qualities, and shortcoming. Be that as it may, the choice of methods with their instruments and techniques and mixing of these methods, instruments, and techniques to a great extent depends upon the main purpose of research, discipline, and theoretical position of the researcher. These methods observe distinctive realities or different aspects of reality nevertheless the combination of these two methods will lead to exceptionally adjusted and high-quality research. Lamentably, the ability to combine research expertise over conventional methodological boundaries is frequently let down or dismissed. Qualitative and quantitative analysts frequently work with a diverse set of presumptions about the world and ways of learning about it. These assumptions may be seen as mutually and inevitably irreconcilable. Researchers are often taught to master only one type of method and, so, become comfortable with their expertise in handling either quantitative or qualitative analysis, but not both. Thesetwo approaches

(qualitative and quantitative) are hardly ever combined and their respective strengths are ignored by supporters of each approach.

Various studies use subjective measurements within comprisedappraisals of equally qualitative and quantitative writing pertinent to the combined interest. Only some may be categorized as combined method studies. Whether this is often evidence of a dynamic debate or the existence of two separate tracks of research endeavors, the use of one method or the other remains the predominant approach to the study of issues and problems. This drift reflects the situation concerning problems in research in general. The inbuilt threat in this strict division of research perspectives is the likely production of inadequate results concerning the problem being considered. In an endeavor to energize the conduct of combined method analyses, it is crucial to talk about the normal distinctions made between qualitative and quantitative approaches to research with a center on displaying arguments for collaborating over conventional research traditions, depicting how both qualitative and quantitative approaches can *complement* instead of competing with (or disregard) each other. It is additionally imperative to talk about why differing research, in common, and the study of issues, problems, and research experiences, in specific, require a sustained combination of qualitative and quantitative research methods and strategies.

a. Epitomizingand illustrating the approaches

Quantitative research is categorized as the statistical embodiment and handling of observations to name and clarify the phenomena that those observations uncover, and qualitative research is portrayed as the non-numerical examination and translation of observations, to find out original implications and configurations of relationships. Revising the definitions of what is implied by quantitative versus qualitative research helps recognize the reasons for the separate use of each method and the continuing debate among analysts concerning the relative value of each approach. In this setting the arguments can be complicated and often are philosophical; in any case, they in a general sense make the following sorts of distinctions. Qualitative implies an emphasis on processes and meanings that are not rigorously examined or measured (if measured at all), in terms of quantity, amount, intensity, or frequency. Qualitative researchers stress the socially constructed nature of reality, the intimate relationship between the researcher and what is studied, and the situational constraints that shape inquiry. In contrast, quantitative studies emphasize the measurement and analysis of causal relationships between variables, not processes. Inquiry is purported to be within a value-free framework (Casebeer and Verhoef, 1997).

Though it may be rather immature to demarcate the dissimilarities between qualitative and quantitative research so definitively, it is obliging to start to understand the nature of the debate by understanding commonly held divisions and rudimentary definitions. The basic constructs for viewing what scientific research is too often divide researchers in the diverse field, where the major trial remains the gold standard against which all other research is bench-marked. Regrettably, these definitions incline to establish two distinct and conflicting schools of research, emphasizing the arguments commonly engaged in to validate the use of one or the other technique, rather than just stating the differing positions and perspectives contained within qualitative and quantitative research models or paradigms.

b. The typical traditions or idiosyncrasies and peculiarities

There are usual customary idiosyncrasies, uniqueness, and variances in qualitative and quantitative research methods. For illustration, quantitative and qualitative research methods are most regularly related to deductive and inductive approaches, respectively. It implies that the two major types of reasoning in social science research are deduction and induction. Deductive research starts with a known theory and tests it, ordinarily by endeavoring to provide evidence for or against a pre-specified hypothesis. Inductive research starts by making observations, as a rule, to develop a new hypothesis or contribute to a new theory. Quantitative research more often than not follows the deductive and qualitative follow the inductive. In quantitative methods, attempts would be to test the hypothesis and /or prove or disprove the theory. Qualitative research, on the other hand, builds theory moving from observations and open questions to more general conclusions. In other words, qualitative research applies an inductive process to conclude. Quantitative research is usually linked to the notion of science as objective truth or fact, whereas qualitative research is more often identified with the view that science is lived experience and therefore subjectively determined. Quantitative research usually begins with pre-specified objectives focused on testing preconceived outcomes. Qualitative research usually begins with open-ended observation and analysis, most often looking for patterns and processes that explain how and why questions.

Once employing quantitative methods, numerical estimation and statistical inference from a generalizable sample are often used regarding a larger true population of interest. In qualitative research, narrative description and constant comparison are usually used to understand the specific populations or situations being studied. As a result, quantitative research is most often seen as a method trying to demonstrate causal relationships under standardized (controlled) conditions. Contrariwise, qualitative research is usually seen as a method seeking a better understanding of some particular, natural (uncontrolled)

phenomenon. The nature of the general theoretical debate is characterized by fundamentally different understandings or beliefs about scientific research, in particular, and the world, in general. Adherence to different and separate paradigms can trap researchers into believing that there is only one true "scientific" way to conduct research. Exceptions to the general rules or doctrines allied with these research approaches suggest that many of the clashes between researchers' perspectives are more a question of belief systems and mutual lack of understanding than of methods. Nonetheless, the arguments continue to focus on methodological aspects.

c. Illustrating dissimilarity and admitting similarity

The combination and use of the polarity and dichotomy of quantitative, deductive analysis under standardized, objective conditions versus qualitative, inductive inquiry aimed at understanding phenomena in uncontrolled, natural settings remains a barrier between researchers from distinctive analytical disciplines. Casebeer and Verhoef (1997) argue that these differences are mainlyobstructive when the objective of the research is the study of constant or chronic problems. Constant or chronic problemsnecessitate the complementary use of qualitative and quantitative research methods to quantify the effectiveness of solutions and qualify the experience as it progresses over time. As a substitute for either disregarding or defending a specific research paradigm, it is conceivable and edifying to see qualitative and quantitative methods as the portion of a continuum of research methods, all of which are contingent on the research objective. For instance, Shaffir and Stebbins (1991) have displayed this continuum in a manner that challenges the idea that qualitative approaches are exclusively exploratory and inductive, whereas quantitative methods are as explanatory and deductive. Guba and Lincoln (1994) verbalize that both qualitative and quantitative strategies may be used suitably with any research paradigm. Questions of the method are secondary to questions of paradigm, which we characterize as the essential belief framework or worldview that guides the researcher.

Cautious examination of the total range of both key research paradigms will demonstrate that both methods can be used in less typical ways, that's, it is doable to quantitatively describe observable events within the real world and to gather qualitative evidence inside pre-specified, experimental situations. Other than recognizing that both methods can be used in these unusual ways, it is additionally critical to be beyond doubt that both methods contain numerous diverse approaches. For illustration, grounded theory and case study are more diverse approaches than those of ethnography or phenomenology, however, all four approaches are qualitative and predominantly used in anthropological studies. The same type of distinctions applies to quantitative approaches as they

are not indistinguishable in design and therefore utilize contradictory techniques for gauging results, and there are numerous diverse forms of experimental, quasi-experimental, and pre-experimental designs, using equally varied quantitative examinations. The point here isn't to get the specific differences between these techniques, but to highlight the presence of a range of choices under both the qualitative and quantitative parasol. There is a need to recognize that both methodological schools have an equally reputable place in sociological and anthropological research; quantitative and qualitative techniques can and should co-exist as potential tools of the research trade. Instead of worrying about justifying the less highly regarded method (which appears to shift over time and across disciplines in any case), efforts should focus on understanding why and when to use one or the other method, or both. The notion of capturing the inter-relatedness, rather than the differences, of qualitative and quantitative methods are beginning to receive greater attention in research. Nevertheless, there prevails dualism between qualitative and quantitative methods. These contrasts between qualitative and quantitative methods are very imperative for understanding qualitative and quantitative methods.

The dualism between qualitative and quantitative methods is that qualitative methods are usually adopted in natural settings, with the search for meaning, rejection of natural sciences, and adoption of inductive approaches. Quantitative methods are based on experimental settings, identification of behavior, and deductive approaches with a realist perspective. Likewise, the concepts usually associated with the quantitative method are based on the type of reasoning viz. deduction, objectivity, causation and the types of questions are pre-specified and outcome-oriented and the types of analysis in quantitative methods are numerical estimations and statistical inferences. On the other hand, the concepts usually associated with qualitative methods are induction, subjectivity, and meaning and the types of questions are open-ended and process-oriented, likewise, types of analysis in qualitative research are narrative description and constant comparison. Despite the dissimilarities between qualitative and quantitative methods, tools, and techniques, there exists a similarity in goal i.e. achievement of precise and scientific solutions.

d. The amalgamation of quantitative and qualitative research tools and techniques

"If qualitative is sitting on the right seat, quantitative is on the left and mixed in the center". This adage denotes that both quantitative and qualitative methods are equally important in research. The modern inclination (and in reality the majority tendency throughout the history of social science) is to use diverse approaches. Quantitative methods might be used with a global qualitative frame. Qualitative methods are used to understand the meaning of the numbers

produced by quantitative methods. It has been argued that by applying quantitative methods, precise and testable expressionscan be given to qualitative ideas. This blend of quantitative and qualitative data gathering is often referred to as *mixed methods* research. The blending or integration of quantitative and qualitative approaches becomes a prerequisite in different circumstances of research. It can happen through methods in numerous ways but at least four ways: clarifying quantitative results with a qualitative approach, building from qualitative results from a quantitative component or instrument, combining quantitative results, or embedding them with each other. Finally, all these will lead to a combination of strategies called mixed methods research, which, these days, is getting to be an imperative technique to examine complex subjects and issues, however, the integration of qualitative and quantitative data remains tricky and needs fundamental elaboration and improvement.

A promising innovation to encourage integration is the use of visual joint displays that bring information together outwardly to draw insights and knowledge. The conceivable uses of combined method approaches are helpful to promote research. Casebeer and Verhoef (1997) claim that the probably combined uses of quantitative and qualitative methods and the motives for using quantitative and qualitative data will be:

- To create measures
- To identify appropriate phenomena
- To interpret/explain quantitative data
- To interpret/explain qualitative data
- To gain equal/parallel value from both types of data
- To conduct an effective multistage (longitudinal) analysis

Another significant aspect of combining quantitative and qualitative tools and techniques is that adequate strategies should be adopted in favor of the common methods of diagnosing and solving social problems in quantitative research as well as in qualitative. Moreover, related to the combination of apparatuses and methods it needs to be noted that there are diverse tools and techniques in qualitative and quantitative research. First, let's start with quantitative. The prime quantitative tool is that of undertaking surveys. Quantitative surveys are supportive in solving several types of the social problem as it studies large and small population (universe) by selecting and studying samples chosen from the populations discovering the relative incidence, distribution, and interrelations of sociological and psychological variables. Surveys can be practical in both quantitative researches such as sociology and qualitative anthropological research. When a researcher wants to collect data on phenomena that cannot be directly observed he can use the survey method. As the objective is to develop and employ mathematical models, theories, and/or hypotheses about

phenomena, quantitative methods utilize the methodical empirical examination of quantitative properties and phenomena and their relationships. The method of measurement is fundamental or essential to quantitative research because it gives the elemental connection between empirical observation and the mathematical expression of quantitative relationships.

The implication of qualitative research consists in setting stress on describing, and understanding complex occurrences. It studies the associations and patterns among factors or the context in which the activity happens. It is focused on grasping the full many-dimensional picture of the subject of investigation. Qualitative strategies yield data as it were on the specific cases studied, and any more general conclusions are only hypotheses. However, within the social sciences, quantitative research is regularly differentiated from qualitative research which is the examination, investigation, and interpretation of observations to find basic meanings and patterns of relationships, including classification. Quantitative investigation utilizing measurable strategies begins with the collection of information, based on the theory or hypothesis. Usually, an enormous information is collected - this would require confirmation, approval, and recording before the investigation can take place. Moreover, visions concerning the part of measurement in quantitative research are to some degree divergent. Quantitative strategies assemble quantitative information - data management with numbers and anything quantifiable. Measurements, tables, and charts are utilized to show the results of these strategies. They are in this manner to be differentiated from qualitative strategies. In most physical and natural sciences, the use of either quantitative or qualitative strategies is uncontroversial, and each is utilized when fitting.

The qualitative method utilizes the systematic approach to data collection and its technique signifies the art of asking, listening, and interpreting. The methods of collecting qualitative data can be grouped into different interrelated categories, methods, researcher's role, and techniques used in data collection. The methods of qualitative data collection are observation, in-depth interviews, group discussions, etc. The role of the researcher is that of an observer, interviewer, or group moderator. The techniques of data collection are participant observation, in-depth key informant interviews, focus group discussions, etc. The chief dictum of the qualitative method is to make people open up and let them express themselves on their terms and at their own pace in their way. Nevertheless, the prime issue is going among the people and building rapport for conducting lofty research. The meaning rapport is establishing a harmonious relationship, togetherness, agreement, affinity, sympathy, concord empathy. It means winning the heart and minds of the local people whom the researcher’s research is targeted on. The psychological connotation of rapport is intense harmonious accord, between the researcher (outsider) and the people of the study site

(internal). It is an act of willingness to cooperate in the establishment of a firm rapport or a relationship. Building rapport is crucial to anthropological research, and the time invested in building relationships yields rich data. Personal rapport is precious since it gave the researcher unlimited access to the time, resources, and the group. An environment of harmony, consonance, agreement, or accord achieved through activities is rapport. For instance, a skilled researcher develops a good rapport with respondents through different skills. The process of building rapport leads to a vague impression of the researcher's identity - for research personnel as well as for groups. Methods such as participant observation and informal interviews (though used differently) are used as research tools like questionnaires or survey instruments. By the way, all the methods and tools are used interchangeably and traded in qualitative and quantitative research. Qualitative anthropological research is long-term, and familiarity leads to the advancement of closeness (intimacy) and detaching hang-ups. This opens up hidden areas to the researcher who is at that point viewed not as an outsider but as a quasi-insider privy to much more sensitive data than an outsider would ever have. Indeed, those respondents who want to control the anthropologist's access to data and the observations made may find it hard to do so.

The approaches of qualitative research differ from the methods of quantitative research. Quantitative methods have the aim of dividing into clearly defined parts, or variables. When we research an issue that we know how to quantify, for example, what can be quantified for sure, we may leave out the factors which are crucial to the real understanding of the phenomena under study. The disadvantage of quantitative, as well as qualitative research, is that they do not always underpin the understanding of multi-dimensional pictures. Qualitative methods are helpful not only in giving rich explanations of complex phenomena, but in creating or evolving theories or conceptual bases, and in proposing hypotheses to clarify the phenomena. Besides, the value of qualitative research consists in the validity of the information received; people are minutely interviewed so that the obtained data would be taken as correct and believable reports of their opinions and experiences. Its major disadvantage is that a small group of interviewed individuals cannot be taken as representatives.

Combining qualitative and quantitative tools and techniques, and analyzing the strengths and weaknesses of their research tools and techniques is a permanent, burning debate in the social sciences. The issues raise classic paradigm war. The personality and judgment style of the researcher and/or the culture of the organization are under-recognized as key factors in the favoredselection of methods. Focusing on the debate of qualitative versus quantitative frames, it is imperative to focus also on how the techniques can be integrated,as in mixed methods research. Good results can come if social researchers develop skills in both realms than debating which method is good.

Summation

While integrating quantitative methods with qualitative, blended, or mixed strategy methods is used when one type of method isn't sufficient to address the research issue to reply to the research questions when we need to supply an alternative point of view in a study, we have both types of information (quantitative & qualitative) and they, together, give a better understanding of our research problem than either type by itself. Creswell (2003) contends that mixed methods are the collection or analysis of both quantitative and qualitative data in a single study in which the data are collected concurrently or sequentially, are given priority, and include the integration of data at one or more stages within the process of research. It is a strategy for collecting, analyzing, and 'mixing' (triangulation) both quantitative and qualitative methods in a single study or an arrangement of studies to understand a research problem. Mixed strategies may have distinctive design types e.g. Embedded designs, Transformative designs, and Multiphase designs. It is way better to use more than one method in the use of self-administered questionnaires, in-depth interviews with key informants, surveys of participants, etc.

There are differing benefits of mixed strategies design e.g. it helps in triangulation: looks for convergence, corroboration, and correspondence of results from diverse methods. Mixed methods act as complementarity by looking for elaboration, enhancement, illustration, and clarification of the results of one strategy with the results from the other method. This strategy looks to use the results of one method to assist or inform the other method and conjointly looks for the discovery of paradox and contradiction, new perspectives, the recasting of questions or the results from one method with questions or results from the other method, and finally looks for to extend the breadth and range of inquiry by using diverse methods from diverse inquiry components. But, there are ethical issues with the rationale of mixed procedures which more often than not emerge out of activities, situations, and results rather than antecedent conditions. There's a concern with applications—what works—and solutions to issues. Instead of centering on methods, researchers emphasize the research issue and use all approaches to understand the problem. There are assorted reasons for "mixing" for example within the insufficient argument — either quantitative or subjective qualitative may be insufficient by itself, numerous points argument in a circumstance when quantitative and qualitative approaches provide particular pictures. Mixed methods may be the favored approach inside a scholarly community who are eager-to-learn argument--it is the most recent technique, its intuitive contention—*it mirrors genuinely lived life*.

7

MORAL INTEGRITY, ETHICS OF SOCIAL RESEARCH,AND THE CONTEXT OF PREDATORY PUBLICATIONS

The term ethics is derived from the Greek word ethos which means *character*. Ethics are the moral rules and regulations and ethical questions are embedded in principles and moral codes. The social sciences essentially require studies of people in real situations, and this raises ethical questions concerning the relationship of the researcher with the subject, issues of privacy for the subject, questions of the exploitation of subjects, and so on. These issues have become more open as social scientists have been criticized for certain applications and have had the validity of their research questioned because of a concern for the ethical dimensions of the type of research. However, ethical discussions usually stay disconnected or sidelined from discussions of research studies. Some researchers consider this aspect of research a late addition. Yet, the moral integrity of the researcher is a seriously vital aspect of assuring that the research process and a researcher's findings are dependable and valid.

After World War II and until the early 1990s, there developed a consensus about the key moral (ethical) standards that should propel and motivate the research endeavor. There are two reasons for this. After the end of World War II, the Nuremberg War Crimes Trial held in 1945-46 in Nuremberg city of Germany brought to public view the ways German researchers had used detained human subjects for experiments in oftentimes horrible tests and experiments. Moreover, within the 1950s and 1960s, the Tuskegee Syphilis Study involved the maintenance of known effective treatments for syphilis from African-American participants who were infected. Events like these forced the reexamination of moral benchmarks, standards, and the gradual development of a consensus that potential human subjects are required to be protected from being used as *guinea pigs* in scientific research. In recent years there has been expanding concern concerning the assurance and protection of the rights and welfare of human subjects in research.

By the 1990s, the dynamics of the situation changed, and in the last few years, the ethics of research have been full of confusion. However, a new consensus has evolved that involves the stakeholder groups most affected by a problem participating more actively in the formulation of guidelines for research.

Protecting against human experimentation at all costs vs. allowing anyone willing to be experimented on has become the norm in the present. Different scholars have raised questions and many suggestions made to avoid ethical problems in the social sciences. Likewise, research studies done by many anthropologists and sociologists have been criticized for breaching ethical codes of research. For example, Edmund Leach's research study in Africa has been heavily criticized for breaching ethical issues. Oscar Lewis's ethnographic study of a Mexican family has been criticized for apparent ethical lapses. Reviewers have raised questions about the way the researcher might have used the poverty of one family for his gain and advancement and about the validity of emphasizing certain aspects of the lives of human beings as if those aspects were perfect at the cost of ignoring the codes of ethics. It was claimed that moral standards are imperative for all researchers including anthropologists since imperative moral issues emerge in their work. This set of standards is intended to increase awareness of the moral issues that confront researchers and to offer them workable rules and guidelines to help resolve the issues of moral integrity.

7.1 Code of Ethics

The logical scientific research endeavor is built on an establishment of trust and confidence which is doable only by embracing a research code of morals. Research morals require the application of fundamental moral standards in scientific research, particularly in the design and implementation of research including human experimentation, experimentation on creatures (animals), distinctive facets of scholastic scandal, and scientific misconduct (such as double-dealing and deception and fraud, fabrication of information, and plagiarism), control and manipulation of research, etc. As the scientific research endeavor is built on a foundation of faith and confidence, as a rule, there's a tradition that the results reported by the researchers are trusted and taken to be valid and substantial. Moreover, society trusts that the results of research reflect a legitimate and genuine effort by researchers to depict the world precisely and without bias. Be that as it may, this belief will continue only on the condition that the researcher commits himself to demonstrate and transmit the values related to moral scientific conduct by entirely following the code of morals of research. The major goal of the code of morals (ethics) is to set up a set of standards and strategies to direct the researchers to attain the goals and objectives of the research. The code draws around the commitments of each researcher through all of the phases of the research study, from the topic selection, and design of the research through to the report presentation, publication, and communication of the experiences of the research project. The presumptions of ethics in social research are related to the researcher's involvement with the research exercises. The moral dimension of research requires inquiring several vital but conclusive questions specifically:

- What moral standards direct the researchers' research?
- How do ethical issues enter into researchers' choice of a research problem?
- How do ethical issues influence the course of activity of the research…..the design of the researchers' study, the sampling procedure, etc.?
- What obligation do the researchers have toward their research subjects? Does the researcher have considered the groups' informed consent to participate in conducting the research study? And what sort of interest the group will have?
- Has the researchers' research study done physical or mental harm or damage to the subjects?
- PAC: Privacy, anonymity, and confidentiality of the studied group maintained or not?
- Will the researchers' research benefit specifically those who participated in the study? A concern for morals (ethics) must be a basic part of the substructure of the research process from the initial conception of the researchers' problem to the elucidation, interpretation, dissemination, and publishing of the research findings.
- What moral issues and quandaries or dilemmas might come into play in deciding what research discoveries the researcher publishes?

These moral questions have to be taken into serious consideration for maintaining the moral guidelines of the research. Researchers got to be guided by ethical standards from the very beginning, that's, from the time of topic selection to the fieldwork, data analysis, and the dissemination of the research report. The researchers ought to be mindful of bearing the accountability to secure the actual consent and interests of all those included in the study. They ought to not abuse any of the data discovered, and there should be a certain ethical duty maintained towards the respondents and participant groups of the study by strictly adhering to fixed codes of moral ethics. In the broadspectrum the codes of morals are as follows:

Code of Ethics

- The researchers need to be ethically guided while making a selection of a research problem. They should select such problems which are the current problems and are directly or indirectly affecting society.
- The researcher should be responsible for his research subjects. Privacy, Anonymity, and Confidentiality (PAC) of the studied groups need to strictly be maintained. Written permission must be obtained from the partners before beginning the research projects. Authorization from all

individuals participating must be obtained earlier to collect personal information.

- There should be respect for the studied group and all participants. There is a responsibility to protect the rights of people in the study as well as their privacy and sensitivity. The confidentiality of involved participants in the observation must be maintained, having their anonymity and privacy secure. It is ought to be kept in head that all ethics must be honored unless there are other prime reasons to do so - for example, any unlawful, terrorist, or disruptive activity.
- The strengths and culture of the community, including community researchers and staff as well as material resources, must be respected and utilized whenever possible.
- Likewise, while conducting research, the researcher needs to keep away from dishonesty or deception (cheating). An example of deception is that some researchers intentionally mislead studied groups about the nature of the study in which they're participating for example by hiding the purpose of the study so that the participants won't act unnaturally. Researchers shouldn't mislead participants about any aspects of the study that would cause them physical harm or too much emotional distress.
- The researcher's research should not harm the community, nation, and humankind.
- Under the ethical codes, researchers should inform participants of the general nature of the research, so they can make an informed decision about whether or not to participate in the research.
- It is necessary to involve the community in active participation rather than passive acceptance.
- It needs to be ensured that the data collection process is in accord with the host community's values and norms, and competent scientific practice.
- Researchers should ensure that the design, implementation, analysis, interpretation, reporting, publication, and distribution of the research are culturally relevant to the community and in agreement with the standards of competent research.
- All research results, analyses, and interpretations must first be reviewed by the stakeholder of the research (researcher, studied group members and organizations, etc.) to safeguardthe accuracy and stay away from misinterpretation.
- All data gathered belongs to the community and must be given back to the community.
- The stakeholder or partners of research must all be involved in creating decisions about the publication and the distribution of all or parts of the

research results and the studied group must agree to release the information.

- The research result should promote the academic dissemination of knowledge through written publications and oral presentations. This includes the documentation of the undertaking of the project and the results.
- In the publication of research work, key issues like honesty and integrity need to be strictly followed. It is compulsory to determine the standing and originality of the research and the ethical standards need to be strictly followed. Publishing falsified (inaccurate) data is a serious breaking of ethical codes. If researchers intentionally publish a research report using inaccurate data, they may be permanently expelled from the academic community.
- Researchers should take on research that will contribute something of value to the community in which the research is being conducted. The researchers should make the best use of benefits to the studied community as a whole and the academic community also. Research should empower the community to hold up community goals of development, to make better its conditions, and fulfill its traditional responsibility of caring for the generations to come. The community must be involved as a full partner in all aspects of the research.
- Research outcomes should convey new skills to community members and should help to address any issues that are raised as a result of research. Research also should provide expertise to scientifically answer questions that emerge from the community.
- The research findings published in the research reports should be made known to the studied group. However, so far in the context of developing countries like Nepal, research conducted by foreign researchers is rarely published in Nepal and disseminated among the studied people.

7.2 Confidentiality and Protection of Subject/Respondents

Positivists claim that numerous social science subjects are comparable to natural science subjects like physics, chemistry, biology, etc. Be that as it may, so far even in the 21st century, there are no laws in social science that parallel laws in the natural sciences, but, there's harmony about essential rules or principles around how to conduct social research. When social researchers talk of good research the focus is on how the research is done---whether the research is methodologically sound -- instead of on whether the results of the research are consistent with personal predispositions (biases) or previously established inclinations. In any case, the issue of good research is related to the concern of the protection of the subject/respondents which is related to the anonymity of respondents. Confidentiality, and prior informed consent of subjects before

conducting the research study are crucial points that the researcher ought to keep in mind. Assurance of privacy and confidentiality in the research is fundamental.

a) ***Anonymity***: Researchers have to respect the privacy of the subjects (studied groups) and so the researcher should not directly mention the name of the respondents in the research report. The option is that the researcher allows the research subject to determine when, how, and to what extent information about him or her is communicated to others. At the time of collecting information and the consequent dissemination of research findings, research subjects generally are anonymous, unless identification has been agreed to or requested by the research subject. Customarily, data are presented in aggregate form which also reduces the potential to link specific responses to individuals. In the process of maintaining anonymity, researchers protect an individual's right to privacy by obtaining free and informed consent before collecting personal information about him or her. The act of contacting potential subjects to seek free and informed consent to access private information may create a breaking of privacy if the researcher does not have access to such individuals in the course of his research activities. The reason to know why the subject might participate in the study should be the first to approach the research subject.

b) ***Confidentiality***: The analyst must ensure the fortification of research subjects by maintaining the secrecy of subjects the infringement of which is unethical or illicit from the point of view of subjects (studied group) and the scholastic community. It is the imperative obligation of the researchers to maintain the confidentiality of the subjects (respondents') personal data collected during the research period. Research ventures vary considerably in the sensitivity of the data involved. Moreover, the plausibility of identifying specific individuals, and the degree and probability of harm that may result from the identification of research subjects are exceptionally serious. In the process of guaranteeing confidentiality, the investigator should not report private data that identifies participants. One of the most secure ways to make certain anonymity is not to record the names of the participants at all and to provide an information sheet that asks for verbal instead of signed consent. Categories of responsive information requiring anonymity may be diverse, for example, latent activities, sexual behaviors, sexual preferences or practices, drug addiction; illegal conduct; information that could damage individuals' financial standing, medical record information that could lead to stigmatization or discrimination; any information about an individual's psychological well-being or mental health, political issues, etc. Violation of subjects' confidentiality may harm the subject, family and friends, or the group to which the research subject belongs. Safeguarding the subjects' confidentiality includes assigning each research subject a code number and

using that number on all data about the subject, and the use of locked rooms and filing cabinets for storage of data.

c) ***Prior informed consent***: At the time of collecting information from the subjects, the researcher needs to take prior consent (permission) from them by winning their heart and mind. The researcher should be able to convince the subjects about his study, its outcomes and the potential uses of the findings, and the consequent uses of the research findings by the group. It is only after the group gets convinced, that the researcher should gather information. Taking the consent of the respondents and giving information is a vital part of the research. Prior informed consent necessitates informing participants about in general drive of the research and its main features, as well as the hazards and benefits of participation. Permission may be agreedupon in written format, verbally and audio-taped, or videotaped. If the researcher does not know in advance the questions that a participant might be asked, or what possible risks might be involved in the future, this must be made clear to the participant at the beginning. Equally, at the time of dissemination of research findings, research subjects normally are informed and they are kept anonymous unless identification has been agreed to or requested by the research subject.

While doing field research, preferably there should be reciprocity in what participants give and what they receive from the participation of subjects—the data. The researcher is grateful to the participants for sharing their experiences. Reciprocity may entail giving time to help out, providing informal feedback, making coffee, tutoring, or being a good listener. The reciprocity should be ethically guided and should fit within the constraints of research and personal ethics, and within the framework of maintaining one's role as an investigator.

7.3 Ethics and Experimental Research

Social research is often a component of research and focuses on the study of behavioral and social factors. Such research may involve the collection of sensitive information about a person and their lifestyle. While some forms of research may only involve observation others may involve studying or testing ways of changing behavior or social circumstances. Given this, the researcher should be strictly guided by ethical guidelines while testing the ways of changing behavior or social circumstances. Ethics are a vibrant part of research that entail the relevance of fundamental ethical principles to a variety of topics that include the design and implementation of research involving human and animal experimentation, academic scandal, changing social behavior, social circumstances, scientific misconduct, etc. Nevertheless, one vital point to be

noted is that research in the social sciences presents a different set of issues embedded with ethical issues than those in medical research. The Ethical issues of experimental research have become vital to discuss the scientific and ethical aspects of experimental research on humans and animals. The case for animals and plants, as subjects of research, are important for humans and deserve attention.

Ethical norms serve the goals of research and are appropriate for researchers conducting scientific research. There are numerous reasons why it is essential to hold fast to ethical norms in research. Ethics encourage the aims of the research, such as knowledge, truth, and avoidance of error. Researchers can take examples like prohibitions against fabricating, falsifying, or misrepresenting research data to promote the truth and avoid inaccuracy. Likewise, since research often involves a great deal of cooperation and coordination among many different people in different disciplines and institutions, ethical standards promote values that are essential to collaborative work, such as trust, accountability, mutual respect, and fairness. Many of the norms of research promote a variety of other important moral and social values, such as social responsibility, human rights, animal welfare, compliance with the law, and health and safety.

Experimental researchers, by nature, are such who primarily concern themselves with testing the causal hypothesis. It is with the help of this design that it becomes both possible as well easy to test the reality of the problem. Experimental research attempts to solve the problem of controls that are exercised in the experiment under the controlled condition. When observation alone fails to disclose the factors that operate in a given situation, the scientists must resent (dislike) to experiment. In experimental research, it is rationally important to realize for an investigator that for experiments two groups are so chosen that in significant respects, they do not differ from each other. One of the two groups is the experimental group while the other is a control group. The experimental group (former) is exposed to casual variables while the other is not. The two variables are then compared in terms of dependent variables. With the help of this type of comparison, it becomes possible to test the type of evidence required for testing a casual hypothesis. It becomes practicable for the researcher to find out whether the effect occurs more or less frequently among subjects who have been exposed to the cause than among those whohave not been exposed. Nevertheless, problems occur here related to ethical issues. For example, there may be unethical manipulation of variables. In experimental research the researcher conducts experimental as well as interpretative research; there is potential power to do well, even to empower, as well as potential to harm. Ethical issues center on whether there are substitute designs in which the researched individuals can more actively become the researchers.The changing context of demands for inclusion, evidence-based neutral practice, and regard

for all human rights should lead us to replicate the practical benefits and moral issues related to research.

There are many other ethical issues to be taken into serious consideration for experimental research. While conducting experiments there may be malfunctions of various sorts. Conducting experiments on sick people, women and children need special ethical caution. It ought to be kept in mind they may not be abused. Likewise, while conducting experiments on animals all ethical guidelines including attention to animal rights need to be strictly followed. Researchers need to remain aware and secure the actual permission and interests of all those involved in the study. They should not ill use any of the information discovered, no one should be mistreated and there should be a certain moral responsibility maintained towards the subjects. Protection of the rights of people in the study, as well as their privacy and sensitivity, are necessary. Ethical lapses in experimental research can significantly harm human and animal subjects, students, and the public. For example, a researcher who fabricates data in a clinical trial may harm or even kill patients and a researcher who fails to abide by regulations and guidelines relating to radiation or biological safety may endanger health and safety or the health and safety of staff and students. The general points of some ethical principles of experimental research are:

- The honesty of the researcher in all scientific communications
- Objectivity in research
- Carefulness in avoiding mistakes
- Integrity while keeping promises and agreements
- Respect for intellectual property, avoiding plagiarism
- Confidentiality of subjects and records
- Responsible publication
- Responsible mentoring
- Respect for colleagues
- Social Responsibility Competence
- Competency of the researcher
- Non-Discrimination against colleagues or students based on sex, race, ethnicity
- Legality to relevant laws and institutional and governmental policies.
- Human Subjects Protection
- Take good care of animals and show proper respect and precaution for animals when handling and using them in research.

7.4 Ethical Dilemmas in Field Research

Field Research is the process of collecting data through active involvement in the field area. Anthropologists and Sociologists often conduct field research by

collecting data with their direct involvement in the field. Field research is conducted in the open, beyond the boundaries of a laboratory or office. Most field research involves individuals, populations of individuals, groups, communities, etc. As field research involves the researcher's engagement in the field, different sorts of interactional, social, and cultural dilemmas (quandaries) embedded with ethical issues can be part of field research. Numerous ethical concerns and dilemmas within field research become a reality that the researcher is compelled to face. A researcher best guided by ethical norms knows what is right and what is wrong in field research. He would never misuse the field, fabricate or falsify data or plagiarize. Unquestionably, he will believe that most of his works are highly ethical and that all ethical dilemmas arising in field research will be solved smartly.

The responsible conduct of field research is the ethical conduct and handling of research. Ultimately, responsible conduct of field research requires that researchers concern themselves with ethical questions and solve ethical dilemmas concerning their field research and make decisions about whether a particular element of a research program is right or wrong. Several ethical issues must be addressed in most research projects involving human beings such as voluntary participation, informed consent, the privacy of personal information, and the potential harms and benefits of the research (Berg, 2004). The ethical issues include: i) drawing out sensitive information, ii) coercive potentials, iii) the consequences of knowing, iv) conflicts of interest, v) confidentiality vi) researcher risks. Lee (1993) suggest that the drawing out of information that might disturb the participant is an ethical issue in all research projects involving human subjects, regardless of substantive focus. One can never know if something in the interview process will strike a negative chord with the respondent. While all efforts should be made to minimize the emotional distress of participants, the drawing of sensitive information type is not necessarily problematic. In some instances, research can gain a further understanding of a sensitive topic. The communications must originate in confidence they will not be disclosed.

In social science field research one very serious ethical issue is deception or cheating which is highly controversial and ethically dilemmatic for researchers. There are numerous conditions of deception in research. The most common type of deception in field research is when anthropologists and sociologists misrepresent their identities. Becoming untruthful and leading someone to believe something that is not true is a common form that is unethical, illegal, and irresponsible. There is also debate aboutthe deception that there is no possible way of obtaining informed consent. Informed consent should be obtained however, it is sometimes difficult in field research in general, especially if deception is used. In non-participant observation, a researcher keeps his identity

secret for drawing data. It may be an act of cheating for the studied people when they reveal the reality. And this will create an immense dilemma for the researcher.

There is a debate about deception when there is no possible way of obtaining informed consent. Covert participant observation involves a researcher secretly becoming part of a group and taking a full part in their lives. The researcher has to become involved in criminal or dangerous activities, particularly where the research is studying a deviant social group in such cases the researcher may be in *dilemma* in handling the task. Likewise, the problems of negotiating and having to act out forms of behavior that the researcher may personally find unethical or distasteful may create a dilemmatic situation. The researcher may be bound to employ a level of dishonesty or deceit which may put him in a dilemma since the researcher essentially lies about the nature of his/her presence within the group but anyhow he will have to carry on his field research.Close attachments resulting from connections with members of the group under study and the covert nature of the research can put a tremendous strain on the researcher, both in and out of the fieldwork setting this can create a dilemma. The problem of *going native*, which refers to the fact that a researcher will cease to be a researcher and will become a full-time group participant may create an *ethical dilemma* for the researcher as well as the people of the studied group.

Not having any sort of assent from the studied group abuses the standard of field morals since it violates the privacy of the studied individuals. The privacy rights of the studied gather should not be abused. It is crucial to note that researchers who conduct research with human subjects are responsible for the protection of participants' rights, security, welfare, and scientific integrity, and keeping up these ethics makes a dilemma for researchers. Within the process of field research, researchers and research sites must see to the local laws and moral guidelines that apply to their part in a research project. Field workers need to look for informed consent or collect information through direct contact with individuals. The researchers have an ultimate obligation for human subject protection, and scientific integrity is in no way reduced and requires them to train the research personnel or the workforce within the standards and practice of research ethics. Researchers have a responsibility to guarantee confidentiality and that the participants will not experience any pain or harm. Confidentiality will prevail only when a participant's identity and secrecy are not disclosed in any manner. One way of doing this is not to report any private data that could identify the participant. But in many cases, it becomes necessary to disclose the secret case in a court of law if demanded.

There are two substantial accountabilities of the field researcher (1) to act respectfully and otherwise legitimately toward each study participant with

whom he or she has a contact for research purposes, and (2) to safeguard the privacy and integrity of the information that he or she collects. It is exceptionally vital to pay attention to body language while looking for consent or recording interview responses and safeguarding data collection sheets to ensure the privacy of personal data. Further, cultural variables are important as well as correct, accurate data recording and cautious and systematic transmittal of data records. In some research settings, interviewers collecting in-depth data on socio-economic characteristics of narcotic drug users or sexual behaviors have a different level of responsibility than workers doing simple headcounts and need to understand their ethical obligations in greater depth. Researchers need to understand all the field dilemmas they are bound to face.Currently, the interest in ethical issues in social science has increased greatly. Nevertheless, in different literature, no wide-ranging framework for the forecast and obliteration of ethical dilemmas has been presented. There are different reasons for increased interest in ethical issues and ethical problems. The interdependencies between these *five* in the research process: *sponsors, researchers, subjects, the media, and the general public* are of the essence. Social science researchers (particularly anthropologists and sociologists) are members of numerous diverse communities and they confront moral predicaments in field research, each with its own ethical rules or codes of morals. They have moral commitments as members of other groups, such as the family, religion, and community, as well as the profession. They have commitments to the scholarly discipline, to the wider society and culture, and to the human species, humankind, other species, and the environment as a whole.

Besides, researchers can develop intimacy with people or creatures with which they work, creating an extra level of ethical contemplation. This may thus create a delicate (soft) corner toward the individuals of the studied group which may impact the total research process. In a field of complex inclusions and commitments, unavoidably, misconceptions, conflicts, and the need to make choices among clearly jumbled values will emerge which can create a further dilemma in the hands-on work. Sociologists and anthropologists are capable of handling such troubles and battling to resolve dilemmas in ways consistent with moral standards. Researchers in numerous cases find themselves in complex dilemmatic situations and ought to depend on a code of ethics for making decisions. In any case, the researcher must be willing to make carefully considered ethical choices and be prepared to make clear the presumptions, realities, and issues on which those choices are based.

In the present situation, researchers have primary ethical obligations to the people, species, and materials they study and to the people with whom they work. These obligations can surpass the goal of seeking new knowledge and can lead to decisions not to undertake or to discontinue a research project when the

primary obligation diverges with other responsibilities, such as those owed to sponsors or customers. To keep away from doing harm or wrong, understanding that the development of knowledge can lead to change which may be positive or negative for the people or animals worked with or studied need to be kept in head. Researchers must do everything in their authority to make sure that their research does not harm the safety, dignity, or privacy of the people with whom they work, conduct research or perform other professional activities. Anthropological researchers working with primates or other animals must do everything in their power to ensure that the research does not harm the safety, psychological well-being, or survival of the animals or species with which they work. In all cases related to field research, the researcher needs to be free of dilemma, especially with the privacy and confidentiality of the studied group. Researchers must settle in advance whether their providers of information wish to remain anonymous or receive recognition, and make every effort to comply with those wishes. Researchers must present to their research participants the possible impacts of the choices, and make clear that despite their best efforts, anonymity may be compromised or recognition fail to become visible.

On numerous occasions, the researchers confront a moral problem in looking for informed assent (consent) from the studied group of people and face an ethical dilemma. Hence, before the commencement of the fieldwork, they should obtain in advance the informed consent of persons being studied, providing information, owning or controlling access to material being studied, or otherwise identifying as having interests that might be impacted by the research. Researchers developing close and long-term relationships in the field with either individual persons providing information or with hosts must hold fast to the obligations of openness and informed consent, while watchfully and politely negotiating the limits of the relationship. Nevertheless, they can become a victim of ethical dilemmas of doing biased behavior toward the favored one by developing a soft corner. As a social science researcher, the investigator must expect to encounter ethical dilemmas at every stage of their work and must make good-faith efforts to identify potential ethical claims and conflicts in advance when preparing proposals and as projects proceed. They should bear responsibility for the integrity and reputation of their discipline, scholarship, and science.

Social analysts face common ethical guidelines of scientific and insightful conduct subsequently they ought to not deceive or intentionally distort (i.e., fabricate evidence, falsify, and plagiarize), attempt to prevent reporting of misconduct or obstruct the scientific/scholarly research of others. Sociological and Anthropological researchers need to preserve chances for future fieldworkers to follow them in the field. They should utilize the results of their work properly, and whenever possible circulate their findings to the scientific

and academic community. Anthropological researchers should critically consider all reasonable requests for access to their data and other research materials for purposes of research. They should also make every effort to assure the preservation of their fieldwork data for use by incoming researchers in the future and also must consider carefully the social and political implications of the information they disseminate. They must do everything in their power to ensure that such information is well understood, properly contextualized, and responsibly utilized. Likewise,the researcher should be free of all dilemmas and ought to be guided by the ethics of academic research.

Between 1996 to 2006, Nepal experienced a decade-long outfitted insurgency and conflict between Maoist and the government. Field researches in such conflict conditions are very critical, risky, and ethically dilemmatic. Fieldwork in the conflict-torn region is extremely challenging for both methodological and ethical reasons. In conflict zones, the usual imperatives of empirical research (to gather and analyze accurate data to address a relevant theoretical question) are strengthened by the absence of unbiased data from sources such as electronic media, newspapers, and the sponsored nature of a good deal of data compiled by organizations operating in the conflict region. The complexity of establishing what a representative sample would be and carrying out a study of that sample, and the obvious logistical challenges create a serious ethical dilemma. Similarly, the ethical necessity of research '*do not harm'* is strengthened in conflict zones by political polarization, the presence of armed actors, the unbalanced security of most inhabitants, the general irregularity of events, and the traumatization through the violence of combatants and civilians alike. These situations create dilemmatic situations for researchers who need to solve these dilemmas in an ethically guided way.

The conventional approaches to ethics in research, centering on the rights of subjects versus the benefits of the research, were composed to serve traditional research methods and are inadequate for addressing the predicaments or dilemmas of field-based research. It is crucial to consider the relationship between ethics and methodology, commonly utilized procedures, and legally binding commitments of social researchers. An approach to field research ethics that centers on specific human relationships and behavior on the field instead of obedience to general principles is a prerequisite.

7.5 Ethics in Scholarly Writings

Ethical writing is writing with a level of inclusion, respect, and affirmation of diversity. The significance of ethical writing, at that point, is based not only upon the avoidance of literary theft or plagiarism but on maintaining a strategic

distance from the weaknesses of bias and exclusive dialect such as sexism, bigot, homophobic (dislike and prejudice against homosexuals), etc. Broadly, the key morals to be considered in scholarly writings are:

a. Plagiarism

Literary theft or plagiarism has strongly expanded over the last two decades, with higher rates in non-English talking nations from Asia, Africa, and Latin America. What constitutes literary theft or plagiarism? What are the strategies to distinguish plagiarism? How do "plagiarism detection tools" help in recognizing literary theft? What is the contrast between literary theft and similarity index? These are likely the foremost common questions concerning plagiarism that numerous research specialists in logical writing are more often than not confronted with, but a conclusive reply to them is less known to numerous. Plagiarism is not only the replicating of content but also the presentation of another's thoughts as one's possesses, notwithstanding the particular words or constructs used to precise that thought. This can be characterized as the wrongful appropriation, close impersonation, or stealing and publication, of another author's language, contemplations, thoughts, or expressions, and the representation of them as one's original and unique work. The cutting-edge concept of this *literary theft* is shameless and original as perfectibility developed in Europe only in the 18th century, whereas in the past centuries creators and specialists were energized to copy their masters as closely as conceivable and maintain a strategic distance from pointless invention and innovation.

The verb *plagiarise* is defined in The New Shorter Oxford Dictionary (2007)as 'taking' and 'using' as one's own (the thoughts, writings, inventions, etc., of another person); copy (literary work, ideas, etc.) improperly or without acknowledgment; pass off the thoughts, work, etc. of (another person) as one's own. Plagiarism involves claiming credit for ideas or creations without proper acknowledgment. In an academic context, acknowledgment is typically given in the form of citations or explicit statements of thanks **(**Martin, 2004**).** This is important for several reasons, including giving credit for ideas or words, providing support for one's argument, and showing that one is aware of sources. To speak of proper acknowledgment is to focus on the positive side of scholarly practice; to speak of plagiarism is to focus on the negative.Any author's work can be called *plagiarized* if one of the following occurs:

- Word-for-word or line-by-line replicating from somebody else's work, whether the source is printed, recorded, visual, or electronic, which source isn't given credit within the essential ways.
- The work is based on sources but does not provide credit to any of them or their authors.

- Use of a passage paraphrases, a source, substance, and concepts without using the author's words without giving credit to the source in vital ways.
- Not giving credit to all those involved in the work has been composed, entirely or in portion.
- The work is compiled from one or more electronic sources, none of which are credited.

Plagiarism is condemned on the grounds of ethical offense. Even though literary theft in a few settings is considered robbery or take, from the point of view of the law, it could be a non-existing concept. Within the scholarly circle, literary theft by scholars is considered academic dishonesty or scholastic extortion. As scholarly untruthfulness and an infringement of academic morals literary theft are subject to sanctions like expulsion and other severe career harm to the individual included in plagiarism alongside the loss of credibility and integrity. In the modern scholarly world, plagiarism by students may be an exceptionally serious offense that can result in punitive actions such as a failing grade on a specific assignment for the course. At the thesis writing level within the college, the thesis student may be severely punished for copyright infringement. For cases of repeated plagiarism, or for cases in which an understudy commits extreme copyright infringement (e.g., submitting a replicated piece of writing as original work), a student may be suspended or expelled. In numerous universities, academic degrees may be denied or revoked as a punishment for plagiarism a kind of *literary theft.*

Currently, the growing accessibility of intellectual property due to an intensification of innovative technology has assisted the debate as to whether copyright offenses are criminal acts or not. The ethical rule is that if the author did not write it himself, at that point he must give credit to the original author. It is imperative to be beyond doubt that plagiarism isn't the same as copyright infringement. While both plagiarism and copyright may apply to a particular act, they are different concepts. It is to be noted that Copyright infringement is a violation of the rights of a copyright holder when material protected by copyright is used without permission. It is also significant to note that plagiarism does not necessarily involve copyright violation. A ghostwriter might write a book for a famous person who appears as the only author; the famous person or the book publisher would normally own the copyright. In general, plagiarism is becoming a serious problem in the modern world of information technology. Web resources may be misused in a variety of ways. According to Martin (2004), there are many types of plagiarism and it is meaningful outlining several of them.

❖ **Plagiarism of ideas**

Plagiarism of ideas is claiming credit for someone else's thoughts, ideas, or inventions. This occurs, for example, when a researcher adopts the idea of another author's work, claiming it as their own. Making a confirmation of the plagiarism of ideas can be difficult, because of the possibility of independent creation. A researcher reviewing a book might build up ideas on his own however would be at fault for plagiarism of ideas if he was stimulated by a book review but didn't mention this review on his own and then used it in his review as if the idea was his own.

❖ **Word-for-word plagiarism**

Word-for-word plagiarism is the total copying of the exact expression of someone's writing and claiming it as his own. If the author's sentence is reproduced in an essay without quotation marks, this is word for- word plagiarism.

❖ **Plagiarism of sources**

If a researcher uses another author's citation without acknowledging where the citations came from this can be called plagiarism of sources. Adding a few or omitting some of the words or sentences without noting that he had used the same ones for the same purposes, would be a plagiarism of sources. The more severe plagiarism is when the sources are not read by the researcher and the references are simply taken from another author's bibliography.

❖ **Plagiarism of authorship**

If a researcher claims to be the author of a whole piece of work e.g. an article, an essay, or a book, fully or substantially authored by another author, this can be called plagiarism of authorship. This occurs when a researcher submits research work that has already been published by someone else when a student submits an essay written by someone else (such as a friend or someone who has been paid to write it), when an academic is listed as the author of work largely produced by a spouse, research assistant or student, or when a subordinate, speechwriter or ghostwriter does the bulk of intellectual work for a work produced under the name of a celebrity, politician, corporate executive or someone else with money, position or status (Martin, 2004). Plagiarism of authorship often involves word-for-word plagiarism, but not always. Translating an article from another language and publishing it under one's name, as if one had written it, is plagiarism of authorship but not word-for-word plagiarism.

In several jobs, plagiarism is a breach of morals, and authors caught plagiarizing usually face disciplinary measures extending from suspension to the end of the job. However, it is additionally imperative to note that a few authors caught plagiarizing in academic contexts claim that they plagiarized inadvertently or

unintentionally, as they were uninformed of almost the works done by earlier authors, additionally that they failed to incorporate citations or give the appropriate quotation. Even though plagiarism encompasses a centuries-old history, the improvement of the Web, where research articles show up as electronic content, has made the physical act of copying the work of others much simpler thus preparing the ground for the rise in the incidents of plagiarism in scholarly works. *Predatory journals* have become a headache for numerous authors and publishers. Cut and paste and substance scratching may be a phenomenon of replicating and sticking material from websites, affecting both established sites and blogs is an act of copyright infringement. By the by, online tools are accessible to assist distinguish plagiarism and there's a range of approaches that endeavor to constrain online replicating. Numerous plagiarism detection services can distinguish undeniable word-for-word duplicates of text content.

Given the bleak circumstance of raising cases of plagiarism or literary theft within the academic circle, good policies have to be drafted to check literary theft. The time demands that literary theft policy options ought to be researched and assessed before and after the adoption of any new policy. In most cases, software programs for detecting plagiarism can detect only word-for-word literary theft for those documents in its database. Be that as it may, it cannot detect plagiarism of ideas, plagiarism of sources, or literary theft of authorship unless they also include detectable word-for-word plagiarism. Students who take ideas from others but express them in their own words cannot be detected. Given this, it can be said that plagiarism and copyright infringement will remain a genuine threat to the academic world in the coming days. The probabilities moreover exist that in the future new measures may be taken within the academic world to check the threat of literary theft.

b. Giving Credit

Giving credit to the real authors' work is extremely essential. It implies when the author intentionally uses those sources created by others, at that point he ought to give credit to those sources in his piece of work. Giving credit to the original author's work is an act of trustworthiness i.e. honesty. It is an honorable assignment, a moral, legitimate, and scholastic prerequisite. Credit giving or recognizing is of the essence since the author needs to relay to his readers where the information came from. Giving credit to sources can be accomplished through credit-giving words. Given the crucial assignment to maintain ethics and to maintain scholarly character, the author must learn how and when to give credit to sources. The undertaking of not giving credit, entirely or partially, is to commit literary theft or plagiarism, which implies stealing or truly, hijacking from others. It is imperative, to be honest keeping in mind that the individuals

who have done the work deserve the credit for it. The untrustworthy or dishonest researchers who get caught claiming others' work as their own can fail assignments, harm their name, get university degrees terminated, and even be lawfully prosecuted. In extreme cases, the plagiarist may be penalized and constrained to pay compensation to the original author.

When the author incorporates somebody else's work (words, statistics, charts, charts, images, audio, video, etc.), it is exceptionally indispensable to give credit where credit is due. It is just a common courtesy to give credit to the real author. The final thing is offering thanks by acknowledging. Giving credit will help avoid plagiarizing. Using somebody else's ideas, words, or other manifestations without apparently admitting where they came from is copyright infringement or plagiarism. DiSano, Penwarden, and Callan (2006) state that plagiarism is immoral and infringing copyright rules is unlawful. To avoid plagiarizing, it is vital to provide credit whenever the author uses any piece of information that's not common knowledge. The piece of work may be the ideas, opinions, words, or theories of others whether quoted, summarized, or paraphrased, statistics, graphs, facts, charts, pictures, sound, video, etc. generated/created by somebody other than the citing author.Even though the methods of credit giving may seem complicated at first, the author needs to keep in mind that they are, in most cases, fairly traditional, have been learned and used by millions before the author, and can be found in various sources (print and electronic), and are understood by many other in different times in diverse situations.

Ways of Giving Credit

It is indispensable to give credit to the source when you cite any piece of material from any source. Giving credit to a source is called documentation. DiSano, Penwarden, and Callan (2006) present the following as the guidelines for which documentation is required:

- **Quotation Marks**: When using words (three or more consecutively) copied from the source, it is necessary to put them in quotation marks, which means, “this is exactly what someone else said." It is crucial to be sure to copy accurately and do whatever is needed to make the quotation grammatically correct. It is noted that a quoted passage should generally not be longer than one paragraph.
- **Citation**: Notably, it documents both direct quotations and paraphrases. The precise place the material comes from is stated or cited for the reader, in shortened form, in parentheses right after the material. In general, nearly all form of documentation prefers parenthetical citations in the text, yet a few specialty forms require notes at the bottom of the page or the end of the paper.

- **Paraphrase**: In general, it is a reaffirmation of a passageway from a source in the author's own words. Unlike summaries, which are shorter than the passage summarized, paraphrases are about as long as the passages on which they are based. Like quotations, paraphrases are used to support a point an author makes in his writings. They have to be documented.
- **In-text Reference**: It is vital to commit to memory that the author's name or title is mentioned in the text, either because the authors' are using only one source or because the author wants the reader to know where a paraphrase begins.
- **Common Knowledge**: Notable is that paraphrased statements of facts, such as statistics picked from a government research report, need to be given credit also. When in doubt, it is essential to cite it.
- **Source List/Reference List**: A list of sources is placed at the end of the piece of work (maybe a report, or book). Usually, Bibliography is the older term, meaning a list of books; most writers now prefer References, Sources, or some phrase using one of those words, to include both print and non-print materials.

c. Citation

The citation incorporates citing, particularly, the piece of work and the name of the authors. The purpose of citations is to allow credit to other authors for ideas, content, conceptual systems, information, charts, outlines, maps, etc., and to assist the reader to assist judging the context, authenticity, and probable partiality of the information based on the source and enable and let readers judge the authenticity of the cited work. A citation could be a reference to a published or unpublished source. But, there doesn't need to be a source. Citation is an abbreviated letters/ numbers/characters alphanumeric expression embedded in the body of an intellectual work that denotes an entry in the bibliographic references section of the work to acknowledge the relevance of the works of others to the topic of discussion at the spot where the citation appears. By and large, the mixture of the in-body citation and the bibliographic entry constitutes what is commonly thought of as a citation (whereas bibliographic entries by themselves are not). It ought to be noted that a major function of a citation is maintaining academic ethics, and intellectual honesty; to attribute to other authors the ideas they have formerly expressed. There are diverse citation systems and each of these citation systems has its respective advantages and disadvantages selected relative to the needs of the type of research work and publication. Here it is noteworthy that bibliographies, and other list-like compilations of references, are generally not considered citations because they do not fulfill the true spirit of the term: deliberate acknowledgment by other authors of the priority of one's ideas. Generally, there are two citation systems:

- ***Note systems***

This system draws on successive numbers (sequential numbers) in the text which alludes to either footnotes (notes at the end of the page) or endnotes (a note on a separate page at the end of the paper) which give the source detail. The notes system may or may not require a full bibliography, depending on whether the author has used a full note form or an abbreviated shortened note form.

- ***Parenthetical referencing***

Notably, parenthetical referencing is where full or partial; in-text citations are enclosed within parentheses and embedded in the paragraph, as opposed to the footnote style. Depending on the choice of style, fully cited parenthetical references may require no end section. Alternately a list of the citations with complete bibliographical references may be included in an end section sorted alphabetically by author's last name. This section may be known as References, Bibliography, Works Cited,or Works consulted.

The Styles of Citation

In any research work or publication, citing the sources is extremely important which implies the vitality of citing the sources. It signifies that any idea, conclusion, information, or data derived from the works of someone else must be acknowledged and cited. As a set of rules, a citation style tells us how to cite sources in academic writing. A citation is required to avoid plagiarism. Citation style guidelines are frequently published in official handbooks containing explanations, examples as well and instructions. Citing or *documenting* the sources used in the research work serves three purposes (1). It gives appropriate credit to the authors of the ideas or words that you incorporated into your research work. (2). It permits those who are reading your work to locate your sources and to learn more about the ideas that you included in your research paper. (3). Citing the sources reliably and precisely keeps authors immune from committing plagiarism in writing which will safeguard them from scholarly theft and numerous other scholarly and lawful problems in the future. There are different styles of citations. Some popular citation styles are:

Table 7.1: **Popular Citation Styles**

Citation style	Disciplines	Type of citation
MLA(Modern Language Association) Style Manual	Humanities	Parenthetical (author-page number)
APA(American Psychological Association)	Psychology, education, social	Parenthetical (author-date)
ASA Style (American Sociological Association	Sociology	Parenthetical (author-date)
Chicago A	History, humanities	Notes
Chicago B	Sciences, social sciences,	Parenthetical (author-date)
Turabian	Humanities, social sciences,	Notes or author-date
Harvard(HS) referencing	Economics	Parenthetical (author-date)
ALWD Citation Manual	Law	Footnotes and inline citations
Vancouver	Medicine	Numeric
OSCOLA	Law	Notes
IEEE	Engineering, IT	Numeric
AMA Manual of Style	Medicine	Numeric
ACS (American Chemical Society) Style	Chemistry	Numeric, Author-page number or Notes
NLM	Medicine	Numeric
AAA	Anthropology, social studies	Numeric
APSA	Political science	Parenthetical (author-date)

While making use of these styles, one ought to keep in mind that one should be consistent throughout the citation, and appropriate to the circumstances in which the citation is done. Of all these styles, APA (American Psychological Association) 7th edition is most commonly used to cite sources within the social sciences. The style of the American Psychological Association, or APA style, published in the Publication Manual of the American Psychological Association, is mostly used in social sciences. It is imperative to be acquainted that the APA style uses Harvard referencing within the text, listing the author's name and year of publication, keyed to an alphabetical list of sources at the end of the paper on

a References page. It is interesting to discern that The American Anthropological Association utilizes a modified form of the Chicago Style laid out in their Publishing Style Guide. Chicago Manual of Style is quite flexible and covers both parenthetical and note citation systems. Regarding the style, the MLA style was developed by the Modern Language Association and is most often used in the arts and the humanities, particularly in literary studies. MLA style specifies formats within the context of a single citation system. These may be referred to as citation formats as well as citation styles.

The variety of style guides recognize the order of appearance, for illustration, of the publication date, title, and page numbers following the author title, in addition to traditions of punctuation, use of italics, emphasis, parenthesis, quotation marks, etc., specific to their style. At present we can find many citation styles with several organizations creating styles to fit their needs owing to which several different guides exist. Regarding the style variations, individual publishers also have their in-house variations as well as their citation methods too. In social publications, The ASA style American Sociological Association is one of the main styles used. Likewise, some social sciences scholars use the nearly identical Turabian style. A specific kind of parenthetical referencing is Harvard referencing (or author-date system). It is indispensable to know that Parenthetical referencing is recommended by both the British Standards Institution and the Modern Language Association. Harvard referencing involves a short author-date reference, e.g.,(Young, 1982), being inserted after the cited text within parentheses and the full reference to the source being listed at the end. In a few areas of the Humanities and Social Sciences, footnotes are used entirely for references, and their use for customary footnotes (explanations or examples) is avoided. In these areas, the term footnote is used as a synonym substitute or an equivalent word for reference, and concern must be taken by authors to form certain how the term is being used.

7.6 The Context of Predatory Publications

Predatory journals also called fraudulent, misleading, deceptive, or pseudo-journals usually on online websites are publications that claim to be genuine academic journals, but distort and misrepresent their publishing practices. The open-access development in science transformed communications technology in the 21st century, pushing for free access to published articles without financial or copyright limitations, and proposing, to bring this to reality, publishing in open-access journals or archiving articles in repositories. In open-access journals, contrary to the conventional publishing business model, authors hold their property rights and allow to read through Creative Commons licenses, which permit free access and re-utilization of their contents. These journals lack the financing that conventional journals get from their commercial distribution,

and their survival depends on modern business models such as the payment of article processing charges, moving from the conventional model of multiple pay-per-view fees charged to the reader to the charge of a single publication fee. But, this model has opened a way for corruption that has been exploited by deceitful companies that dispatch journals with the sole reason of benefitting from these expenses and don't give any of the services anticipated from a logical journal, such as peer review. Such predatory publishing, also write-only publishing or beguiling or deceptive fraud publication, is an *exploitative academic publishing commercial model* that includes charging publication fees to authors without checking articles for quality, and authenticity, and without providing editorial and publishing services that authentic and legitimate scholarly journals provide, whether open access or not.

The main objective of predatory journals is an immediate money-making commercial motive. They endeavor to deceive authors to publish for an expense without giving robust peer-review or editorial services, in this manner putting benefit over trust and dependable science. For many such as university teachers and academics, career progression depends on publishing, so one may hunt for journals that guarantee to publish all submissions. In any case, there isa difference in an author’s ability to assess an unfamiliar journal and typically how predatory journals can endure. It is indispensable for an author to assess whether or not a journal engages in predatory practices/business. Some common forms of predatory publishing practices incorporate dishonestly claiming to provide peer review, hiding data about Article Processing Charges (APCs), distorting and misrepresenting members of the journal’s publication board (editorial board), and other infringement (violations) of copyright or scholarly ethics. Since of their expanding prevalence, it is essential to supply supportive information for authors on how to identify and avoid predatory journals.

Jeffrey Beall, a librarian at the University of Colorado in Denver, is credited for coining the term “predatory publishers,” which he depicted as organizations that publish fake journals to exploit the open-access model in which the author pays. These predatory publishers are untrustworthy and need transparency. They aim to trick and cheat researchers and authors, particularly those inexperienced in academic communiqué. In 2008 Jeffrey Bell issued a caution on this condition after taking note of the abundance of emails he received from journals with names similar to those journals of international prestige soliciting papers and promising their fast publication, remarking on the amateurish feel of their websites and emails, the use of 'Gmail' for paper submission, and the failure to mention the need to pay APCs (Article Processing Charges) that were requested at a later point. Beall proposed certain criteria linked to poor journal measures, while, in 2016, researchers Stefan Eriksson and Gert Helgesson distinguished 25 signs of predatory publishing. In 2015, Jeffrey Beall used 26 criteria related to

poor journal measures, standards, and practices, related to journal editors and staff individuals, 7 related to morals (ethics) and integrity, 6 related to the publisher's business practices, and 6 'other' general criteria related to publishers. He moreover recorded 26 extra practices, which were reflective of poor journal standards and were not essentially indicative of predatory behavior. Beall hosted a list of publishers he believed to be predatory on his blog, Scholarly Open Access, from 2012 to 2017. In 2010, he had made a list of suspicious journals, which he named predatory journals, that he inevitably took down in 2017 after receiving personal threats and threats of legal actions from publishers and journals that worked on great confidence and faith despite not meeting certain standards, perhaps as they were new in this field.

What do predatory journals do?

- May promote an unrealistic timeline for publication.
- Publishes all articles for which authors pay an APC (Article Processing Charge) even in case the article is low quality, unrelated to the topic of the journal, or nonsensical.
- Publishes articles that may have grammar mistakes (little or no copyediting).
- The Editorial Board includes people who do not exist, do not have accreditations (credentials) relevant to the topic of the journal, have affiliations that cannot be confirmed or verified, or are real people who are not aware that they are listed as members.
- Imitates and mimics the name or websites of other well-known, legitimate, and quality journals.
- Aggressively targets potential authors through emails. May state that publications offices are in one nation but contact details are in another.
- Solicitation emails contain linguistic blunders of phishing scams.
- Lack of transparency about the acknowledgment (acceptance) process or APCs (Article Processing Charges), so authors do not how much they will be charged until their article is accepted and acknowledged for publication.
- Requires authors to sign away their copyright to the article while submitting, making it inconceivable for the author to submit the article to another publisher.
- Publishes articles submitted before the authors have signed the publishing agreement, then denies taking the article down in case the author withdraws the submission.
- Removes articles or entire journals from the web without caution or informing authors.

Types of Predators

Predatory journals are a worldwide academic threat. They acknowledge articles for publication in conjunction with authors' fees but without performing guaranteed quality checks for issues such as literary theft or moral endorsement. Since there are different types of predators to trap the authors in academic dishonesty, credulous readers and numerous naïve, as well as experienced researchers, are tricked into submitting to predatory journals, in which their work can be ignored and misused. The common types of predatory publishers characterized by diverse behavior and actions are as follows:

1. *Phisher*: Baits the author in with guarantees then charges hefty fees after the paper has been "accepted." Publication expenses are not openly disclosed and after acceptance, phishers may demand payment even though no paperwork has been signed.
2. *Impostor/Hijacker*: Poses as a well-established journal or as a publication related to a well-known brand or society. Frequently imposter journals tack on an additional word to an existing journal name such as "Advances", "Review" or " Reports" or make websites that appear to be partnered with another publication.
3. *Cloned*: The word clone implies producing a duplicate copy or intimation of something identical. Clone journal web pages are a forged replica copy of an authentic journal that exploits the title and ISSN of genuine and legitimate journals with slight varieties in text, numbers, or website URLs.
4. *Trojan Horse*: Features a genuine-looking legitimate website, frequently with impressive lists of publications, but upon closer assessment, nothing is what it appears. The journals are purged or empty shells or more awful, populated by stolen or plagiarized articles.
5. *Unicorn*: Too good to be true! These publishers may in truth be authentic and legitimate businesses that are not giving great products or customer support/service. Common issues may incorporate no archiving policy (meaning your publication seem to disappear at any time); missing or ill-defined peer-review criteria; and conceivable publishing morals infringement.

Identifying a predator: common characteristics of predatory journals

How identify and determiningwhether a journal or publisher is predatory or not is a real challenge in this age ofthe online cyber world. Determining if a publisher is predatory is frequently a matter of assessing publisher practices against expectations. While not fool-proof, the warning signs are evidence-based and assist as a great starting point e.g. is the peer review process clearly

expressed on the website?Claims to be a peer-reviewed open access publication but do not give adequate peer review or the level of peer review guaranteed (a few predatory journals repeatedly use a template as their peer review report). There are numerous resources to check for suspicious activity such as articles retraction (withdrawal) watch, and other ethical infringement (violation) and suspicious activity within the process.

Precautions

In a quality-recognized journal, it is standard practice to let authors know the processes of article submission, rules, norms, requirements criteria, and the charge (if any) of publication before submission. Typically, recognized reputable journals are members of any recognized scholarly publishing association such as the OASPA (Open Access Scholarly Publishing Association) Code of Conduct. But in a predatory journal, it is not so,hence, necessitating precautions and warnings to be followed when choosing a real quality journal for publishing an article. The precautions and warnings to be paid attention to by an author include:

- The journal's scope of interest incorporates irrelevant subjects alongside legitimate topics.
- The publisher or journal's name is suspiciously similar to other well-known publications.
- Does the website clearly state the publishing fees?
- A journal that claims to be open access either holds the copyright of published research or fails to specify copyright.
- Is the journal indexed in databases that you use? Need to check the journal’s page in the Catalog—you can do this by following the link for a journal in the article’s record. Is the journal an enlisted member of the Committee on Publication and Ethics (COPE) or Open Access Scholarly Publishers Association (OASPA), or listed in the Directory of Open Access Journals (DOAJ)? Advertises a Journal Impact Factor or other citation metrics on the website that is erroneous or cannot be confirmed.
- Can authors contact the publisherwith ease?
- Are the timestamps of approaching (incoming) emails steady with the working hours of the reported nation of origin?
- Does the phone number have the proper country code?
- The website contains spelling and grammar errors. Are there spelling or linguistic mistakes or other questionable flawed characteristics on their website or in the solicitation email?
- Pictures or logos are distorted/fuzzy or misrepresented/unauthorized.
- The website seeks authors, not readers (i.e. publisher prioritizes making cash over product).

- The Index Copernicus Value (a counterfeit impact metric) is promoted.
- There is no clear depiction of how the manuscript is handled.
- The peer-review process is not clarified or is not to discipline standards.
- Rapid publication is promoted and promised.
- Manuscripts are submitted by email.
- There is no article withdrawal retraction policy.
- There is no computerized digital preservation plan for content.
- Contact e-mail address is non-professional and non-journal/publisher affiliated (e.g., @gmail.com, or @yahoo.com).
- Publishing costs and expenses are not transparently disclosed or simple to locate.
- The APC (Article Processing Charge) is comparatively low (e.g., <$150) for authors from rich countries.
- Beware of assurances and promises of speedy peer review as it is the mark of a publisher who values profit over quality. There is concern that papers submitted to journals that advertise this sort of benefit are not doing peer review.
- Advertises itself as Journal Impact Factor rated without being one.
- In a scholastic community such as a university, you'll have to get to Journal Citation Reports from which you'll see up trademarked Journal Impact Factors as calculated by *Clarivate Analytics*.

Why avoid submitting to predatory publishers?

The predatory publication is scholastic dishonesty and unethical behavior. Numerouswritersinitially experience voraciouspredatory issuersor publishers after getting an email asking them to submit an article to one of the predatory journals. These emails can be momentouslyflattering, brandassurances to publish and circulate anything the author submits, or guarantee review and publication on astrangely quick timeline. It may be enticing for authors to experience these journals, especially in case they are not consciousthat it may be a trick, or on the off chance that they are in a hurry to be published. Be that as it may, submitting articles to predatory journals may have serious negative consequences. Falsepeer review undercuts the methodical conversation. One of the foremost corporatepractices of fakeand deceitful publishing practices of predatory journals is to assure and claim to provide genuine peer review when they do not. This practice leads to numerous issues within the broader setting of logical scientific advance. Papers with faultystudyor communication issues don't receive the advantage of peer responseor feedback before publication and can be printed with imprecisematerial. Low-quality articles or deliberatelyfalse information, which honestpeer review would likely capture, are also occasionallypublished in these predatory journals. Whilethese articles are published under the pretense of having received peer review, it can

authorizedishonestyand deception to enter the wider research community and slow or divert effort away from more authentic lines of investigation.

For an author publishing in a low-quality journal, can make their research difficult to find and less probable to be cited and used by other researchers. Asfake journals are seen to be low quality and deceitful, good researchers in the authors' field are less probable to browse those journals or read them. Subsequently, articles comprising imperative research discoveries may be passed over by the wider scientific community. Numerous well-known citation databases furthermore don't list low-quality journals, so other researchers may not be able to find your work just by searching by subject. The authors who have published their research works in a predatory journal could be scammed and lose their work. The predatory journal's goal is to motivate authors to pay an APC (Article Processing Charge) while performing the least amount of work possible on the publisher's side. Occasionally, this incorporates not publishing accepted articles, taking articles or journal websites offline without notice, or publishing submitted articles before authors have signed a publishing agreement (understanding). Asmany genuine publishers will not acknowledge articles that have been published previously, submitting an article to a predatory distributor can be perilouseven if the author eventually chooses not to publish with them.

Plagiarism and predatory journals: A risk to scientific integrity

As predatory and pseudo-scientific publishing are a major threat to logical scientific meticulousness and research, hence, they destroy the scientific integrity of any discipline. Conceivable plagiarized content and fake peer-review undermine the logical discussion; publishing in a low-quality predatory journal drenched with plagiarized materials can make authors' research harder to find and less likely to be read and cited by others, could be scammed, and lose their work. The validity of science, its institutions, and the people included in its improvement is established on integrity, caught on as active adherence to the moral standards and proficient guidelines fundamental for the mindful practice of research. Plagiarism or literary theft devastates this validity and disbands the recognition, credits, and rewards system based on the publications made by researchers. The pressure applied on researchers by using the number of publications as the sole criteria for assessing their performance is regularly displayed as empowering scientific misconduct and undermining to turn publication into a mechanical process that cannot convey information appropriately and where anything goes so long as the apparatus proceeds to churn out content. Predatory journals accept and publish all kinds of research works that may be drenched with plagiarized content.

The predatory publishers pose genuine perils and build up criteria for suspicions that are essential to be well-thought-out by scholars looking for a magazineor journal to publish their work, readers in determining the trustworthiness of the articles (including plagiarism), and evaluators in refereeing the consequence of an individual's credentials. Predatory journals undermine the integrity of the logical scientific system by undermining the aims of open access, making perplexity (confusion) around those journals that operate ethically under the **APC** (Article Processing Charge) model. They offend the honor of reviewers and editors whose names they incorporate without taking consent, of authors, primarily inexperienced ones, that publish their work in them out of ignorance, and of journals that begin their course with this model but are not hithertorecognizedas sufficient to be indexed in prestigious databases. But overall, they inflict harm by compromising the quality of published content, as they don't carry out satisfactory peer review processes, in this way constitute a store of scientific misconduct populated by corrupt (unscrupulous) researchers whose only purpose is to fraudulently upgrade their accreditations (credentials). The validity of science, its institutions, and the people included in its development is established on integrity, understood as active adherence to the moral standards and proficient benchmarks essential for the responsible practice of research. Plagiarism devastates this credibility and dissolves the credits and rewards system that's based on the distributions made by scientists.

Tools and techniques to avoid (dodge) predatory publishers

After the closure of Beall's List 'Scholarly Open Access', other endeavors to identify predatory publishing have emerged, such as the paywalled Cabell's blacklist, as well as other lists (some based on the original listing by Beall). Several new apparatuses and tools have been developed and are used extensively to make it easier to identify which journals are reliable and which are possibly predatory. Legitimately reputable journals are indexed in large, trusted databases of academic work such as Web of Science, Scopus, MEDLINE (for biomedical work), Open Access Scholarly Publishers Association (OASPA) Committee on Publication Ethics (COPE), SCImago Journal Rank, National Library of Medication (NLM) Catalog, Journal Citation Reports (JCR) (journal analysis tool maintained by Clarivate Analytics) and many other. To maintain a strategic distance from predatory publishers and their journals, there are multiple methodsand techniques that the author can use such as looking through the journal’s archives for articles that seem off-topic, checking that the APCs (Article Processing Charges), and reviewing process is stated on the journal website, or checking for grammar and spelling botches or errors in solicitation emails. Further, there are numerous several tools and checklists presently accessible for confirming publishers' identity or supportive tips about how to check the validity of a publisher. If all else fails authors can attempt to reach a

part of the editorial board of the journal, look for a second opinion from a peer with publishing experience, or inquire a librarian for help. Some of the popular software devices (Journal Selector Tool) to identify predatory publications are:

- Directory of Open Access Journals (DOAJ)
- Edantz Journal Selector
- Elsevier Journal Finder
- JANE (Journal/Author Name Estimator)
- JournalGuide
- Publish & Flourish
- Open Journal Matcher
- Springer Journal Suggester

8

MIXED RESEARCH AND ETHICS AS A DISTINCTIVE METHODOLOGY

Research methodsareessentialto all sciences. Social science research methods are an imperative portion of social syllabi and give an implies by the use of which logicalsocial progressis enriched. Without a doubt, their standing as ‘sciences’ is frequently defended by insinuating the specialized methodological perspectives of research methods, whereas the very term ‘science’ carries with it ideas of areas of study which are available only to those who have experienced a lengthy training process to understand their inward workings. There are also those within these disciplines who might characterize themselves as ‘theorists’ instead of ‘researchers’. The latter focus on the process of research, whereas the former might argue that they gain an advantage in having a distance from the experimental empirical world to reflect upon those processes and their processes. There is justification and merit in both of these views for they are not the contrary energies that their respective protagonists regularly claim them to be. Equallyoriginalphilosophy and carefuldevotionto the detail of data collection enlighten the drill of social research.

Methodology, methods, and theory are all part of the subjects and procedures that frame and apprisethe discipline. These contrasts, in any case, habitually lead to debate, as well as perplexity (confusion), over the nature of research and the methods that it ought to employ in pursuance of its aims. For this reason, there ought to be an examination of how the researchers advancetheir understanding of the social world, the relationsthat prevail betweenresearch and theory, and standards, values, and research ethics in the research process. These issues are complex, they are furthermorecrucial to a comprehension of research methods. In the absence of this, issues, approaches,and methods can become isolated and separated and research practitioners are left with the impression that they have to learn different techniques to undertake research. A parochial approach to investigative practicepropagatesthe notion that theory, research ethics, standards, and methods of social research are separatethemesand that researchers, notwithstandingbeing active and partaking in the societies that they study, are somewaydifferentfrom the real social world which is the entityof their studies. This aloofnessamongthem and the research subjects of their study allows animperfectconcept of neutrality to be maintained. It is obvious, this is exposed to substantialdiscussion for our membership in a society, it can be contended, is

an obligatory condition for comprehending the social world where we live and participate, as well as being a fact of life from which we cannot escape. Indeed, such participation may be a prerequisite for objectivity. Having an understanding of these debates and the applicability of different methods of research, improved research and more inquiring and confident researchers will be the result. To this extent, it is important to be aware of not only the strengths of particular methods of social research but also their limitations. Discussions of issues form the starting point for the philosophy which underlies: that is, that issues and methods cannot be simply separated and that we, as researchers, will produce more systematic understandings of the social world by being aware of these debates, their implications for research and our place within them. It is to be noted that perspectives do not dictate the nature of research itself, or how it is piloted; although the issues will notify how the aims, methods, and process of social research are measured. The methods of research, at the level of theory, when theory is deliberatelyintricated, replicatelogical*bricolage* or post hoc validationsrather than the steady function of prudently pickedvitalmolds and assumptions. Often practicalmethodological selections, qualitative, quantitative, or mixed research, are steered by quite other considerations, some of a highly practical nature, and there are independent methodological traditions with their channels of transmission.

Mixed methods allude to a new research methodology that propels the methodicalamalgamation, or mingling, of qualitative and quantitative data within a singleresearchor persistentprogram of an inquest. The essential principle of this procedure is that such amalgamationallows a more comprehensive and synergistic use of information than detached quantitative and qualitative data collection and analysis. Creswell and Creswell (2017) assert that mixed methods research initiated in the social sciences and has lately expanded into the health and medical sciences such as nursing, family medicine, social work, mental health, pharmacy, allied health, and others. In the last decade, its procedures have been developed and refined to suit a wide variety of research questions. These processescompriseadvancing consistency, proposingalternate mixed methods designs, stipulating a shorthand notation system for analyzing the designs to proliferatecommunication across differing fields, envisagingprocessesvia charts, stating research questions that can mainlybenefit from integration, and developing bases for pilotingdifferent forms of mixed methods studies.The epicenterof a well-designed blended mixed methods study incorporates the following:

- Gathering and investigating both quantitative (closed-ended) and qualitative (open-ended) data.

- Using arduousprocesses in collecting and analyzing data appropriate to each method's tradition, such as assuring the appropriate sample measure for quantitative and qualitative analysis.
- Merging and integrating the data amid data collection, analysis, or discussion.
- Use of processes that setup qualitative and quantitative components either concurrently or successively, with the same sample or with different samples.
- Outlining the procedures in philosophical and theoretical models of research, such as in a social *constructionist* model that seeks to comprehendmanifoldstandpoints on a single issue—for instance, what sick person, caregivers, therapists, and practice staff would portray as superior treatment in medical research.

8.1 Mixed Methods Social inquiry a Distinctive Methodology?

In all methodological spheres such as philosophy, methodology, down-to-earth pragmatic strategies and rules, and sociopolitical obligations—the eminence of the blended mixed methods arena is significant. Vital endeavors are eminent in each dominion, as are imperativeconcerns for further development. It has been about more than four decades since the beginning of the current groundswell of conceptual interest in the mixed methods approach to social inquiry. Well before this conceptual groundswell, social scientists in highly practical fields—for example, education, nursing, and especially evaluation—had been routinely using a diversity of methods in their work (Datta, 1994). Different expertswanted to use numerousapproaches because the practical demands of the contexts in which they worked called for both generality and particularity. And they called for defensible patterns of recurring regularity as well as insight into variation and difference. And they called for results that conveyed magnitude and dimensionality as well as results that portrayed contextual stories about lived experiences. And they called for dispassionate neutrality as well as engaged advocacy for such democratic ideals as equity and justice. In many important ways in these quintessential fields of practice, the development of conceptual and theoretical ideas about mixing methods in social inquiry has followed the lead of innovative and thoughtful inquiry practitioners.

In other areas of social sciences, including a few accustomed to large-scale macro viewpoints of social life, such as demography and development economics—awarenessof mixing methods has emerged more from theoretical and epistemological concerns than from practice. The field of anthropological demography, for example, itself represents a blend of a pragmatic, realist, large-scale perspective with a sociocultural, interpretive, localized perspective, a blend that evolved through conceptual pathways over the latter half of the 20th century

(Kertzer & Fricke, 1997). From the perspective of anthropology, for both traditional anthropological topics (marriage, kinship, property inheritance) and especially topics related to population changes, there was a conceptual need to link social behavior to wider social systems to meaningfully make interpretive sense of localized phenomena. Unless demographic factors were taken into consideration, even basic ethnography would be misleading and inadequate. And from the perspective of demography, traditional demographic theory and epistemology were found to have insufficient explanatory power, notably in an infamous study of the 20th-century decline of fertility in Europe referred to as the Princeton study (Kertzer & Fricke, 1997). This study traced that cultural settings influenced the onset and spread of fertility decline independently of socioeconomic conditions. This kind of theoretical failure steered demographers to attend to cultural factors and to re-anchor their traditional quantitative thinking in ethnographic insight and theory.

Till now, the expansion of mixed methods theory has emerged as a vigorousinteraction with ingenious practice in highly applied fields and with the felt limits of traditional theory in fields with robust disciplinary theoretical traditions. This has been propagative and productive for the field, will likely proceed to be so as the field develops, and so should be effectively and actively encouraged and nurtured. This view—about the significance of the dynamic interplays between theory and practice or between thinking/knowing and acting/doing—is a trademark (hallmark) of practicality which is a leading contender for the philosophical champion of the blended mixed methods field. So, is mixed methods social inquiry a distinctive methodology? A few key questions are (a) what we know about blended or mixed methods approaches to social inquiry, as represented by the accomplishments of numerous recognized scholars, supporters, and contributors to the field; and (b) what critical questions remain to be engaged, or what are some priorities for a mixed methods research agenda (for those of us weird enough to persist in being fascinated by questions of method). (c) what is the tentative position on the key question concerning the distinctiveness of a mixed-methods approach to social inquiry? Is the field moving in that course (direction)? What is required for mixed methods to become a distinctive methodology? And why is this imperative, or is it? The answers can be considered and reflected by employing a non-specific broadoutline for the basicconstituent gears of any social science procedure or methodology. This framework has four domains or spaces.

Domain 1: *Philosophical Traditions and Standpoints*

The domain 1 realm is attachedto the logic (philosophy) of science and incorporates assumptions about the nature of the social world (ontology) and the nature of justified or warranted social knowledge (epistemology). This space or

domain moreover incorporates stances on related philosophical issues, such as objectivity and subjectivity and the role of values, context, and contingency in social knowing. In expansion to these traditionally paradigmatic issues, Domain 1 incorporates conceptual perspectives related to the core constructs and theoretical predispositions of specific disciplines, for example, the monitoring and regulatory functions of meta-cognition in psychology. Further associated with Domain 1 are the beliefs and value commitments that underlie philosophical and theoretical stances. Broadly, this domain refers to what philosopher Denis Phillips (1996) called the ‘‘mental model’’ of the inquirer—a construct that is messier and less rarified than philosophical paradigms, but also fuller and enriched by both substances and experience.

Domain 2: *Probe or Inquiry Logics Domain*

Domain 2 set up, as a rule, named "methodology" in social sciences with an eminent drive for inquiry purposes, questions, broad inquiry plans, bases of sampling and logics, analysis options criteria of quality for both methodologies, and faultless shapes of research writing as well as reporting. Domain 2 specifics are the justifications for a given methodological rationale as well as logic and its module parts.Resilientinquestsense is validated by consistency and link among the constituent parts. The distinctparts are required to fit and function together to assist—from the point of view of a given inquiry approach—defendableinformationcongregation, analysis, and construal (Greene, 2006). One instance of customary inquiry logic is that of survey research which answers questions about the occurrence, recurrence or frequency, and co-occurrence of social phenomena for a given populace. Survey research is strictures i.e. parameters connected to the representativeness and measure and size of the samples acquired, required for purposes of generalizing to the general populace, and parameters related to the precision of responses required for the reliability of inference. In expansion, a comprehensive presentation of descriptive survey research comes about helps in supporting the results from more inferential analyses. These characteristics of the survey methodology are integrated, coordinated, and advocated by their common reason of producing precise incidence data on chosen phenomena for a given populace of intrigued.

Domain 3:*Practice Guidelines*

Domain 3 offers specific practice rules or guidelines. Domain 3 is the ‘‘how-to’’ of social inquiry and takes after direct from Domains 1 and 2. It centers on viable counsel rather than philosophical and hypothetical theoretical positions as of Domain 1 or a justificatory basis for a particular way of examining a social phenomenon of Domain 2. For a given mental model and inquiry basis, Domain 3 renders direction and guidance on specific choices for inquiry plan; sampling;

information gathering, investigation, interpretation, reporting, etc.Dillman (1978) contends that to demonstrate, once more for the convention of survey research, Domain 3 shows how to conduct different sorts of survey sampling, for illustration, stratified random sampling or cluster sampling; how to write clear survey questions that minimize irregular blunder in responses; how to secure a solid response rate; how to fill in or compensate for lost information in analysis; and how to create tables and displays that show and support flawless solid survey results.

Domain 4:*Sociopolitical Commitments*

Finally, in Domain 4, the area of the inquiry in society expressed—whose interests are being furnished, what wide reason is being satisfied by the study, and in what ways is Blended Mixed Methods Social Inquiry an unmistakably distinctive methodology? the study locked in with the inescapable politics of the setting in which it is arranged? Domain 4, thus, concentrates on the area (location) of social science in society, for illustration, as a counselor to government decision-makers or, in differentiation, as a social faultfinder. Indeed, even though not autonomous from the other domains, especially Domain 1, the role of science in society may be a particularly distinguishing matter.

8.2Principled issues in Mixed Research

Mixed-method research (MMR) is a principled complementary research method to the traditionalquantitative and qualitative research approaches. MMR is regarded as a natural choice to complement and cater to the increasingly complex needs of contemporary researchers, an adaptable and versatile conceptual system for planning and conducting blended strategies research in a simplified manner. Concurring with the elemental guideline of mixed research, the researcher uses a mixture or combination of strategies that have complementary qualities and non-overlapping weaknesses. This principle is vital since it gives the researcher a logic for mixing quantitative and qualitative research approaches. Some other principled issues are:

Necessary to substantiatefindings using quantitative &qualitative data sources

Evaluators can use a concurrent plan design to compare findings from qualitative and quantitative data sources. It incorporates collecting both sorts of information at generally the same time; surveying data utilizing parallel constructs for both sorts of information; autonomously analyzing both sorts of information; and comparing results through methods such as a side-by-side comparison in a discussion, changing the qualitative data set into quantitative

scores, or commonly showing both forms of information. For illustration, the investigator can amass qualitative data to assess the individual experiences of patients in medical studies whereas as well gathering information from survey instruments measuring the quality of care. The two sorts of information can give an endorsement for each other and make a solid establishment for concluding the intercession.

The practice of subjective qualitative data to investigate quantitative findings

As an informative explanatory successive design, it customarily comprises two stages or phases: (1) The first is an early introductory stage, and (2) The second one is the subjective data collection phase, where the qualitative phase builds especially on the comes about i.e. results from the quantitative phase. Consequently, the quantitative results are clarified and explained rigorously detailed through the qualitative data. For instance, findings from instrument data around costs can be examined further with qualitative focus groups to better get how the individual experiences of individuals facilitate the instrument results. This kind of study traces the utilization of blended mixed methods and methodologies to clarify and explain subjectively qualitatively how the quantitative mechanisms might function.

Developing survey instruments

One another blended mixed methods study design may bolster the progression of appropriate quantitative instruments that give precise measures in an investigative research setting. This exploratory successive design incorporates,beginning with collecting qualitative exploratory information, analyzing the information, and utilizing the findings to create a psychometric instrument well-adjusted and adapted to the sample under study. This instrument is at that point, in turn, managed and administered to a sample of the populace. For outline, a therapeutic medical study may begin with a qualitative exploration through interviews with essential care suppliers to evaluate what constructs should be measured to best understand the improved quality of care. DeVellis (1991) contends that from this investigation, an instrument could be created utilizing intensive and thorough scale development strategies that are at that point tried with a sample.Hence, researchers can use a mixed-methods approach to create and test a psychometric instrument that moves forward and improves on existing measures.

Use of subjective qualitative information to expand a quantitative results study

An outcomes study, for example, a randomized, controlled trial, with qualitative data gathering and analysis included, is called an implanted or embedded design.

Interior this sort of outcomes study, the analyst collects and analyzes both quantitative and qualitative data. The qualitative information can be solidified into the study at the start (for illustration, to assist the design of the intervention); amid the intervention (for instance, in a health study to explore how participants involve and experience the Patient-Centered Medical Home (PCMH) model); and after the intervention (to help clarify the results). In this way, the qualitative data leads to the increment of the outcomes study, which could be a well-known approach within implementation and dissemination research (Palinkas, Aarons, Horwitz, et al., 2011).

Involvement of community-based stakeholders

Mertens (2003) contends that a community-based participatory approach is an outline of a multiphase arrangement plan. This progressive mixed or blended strategies approach incorporates community participants in various quantitative and qualitative stages or phases of research to bring about alteration. The different multiple phases all address a common objective of surveying, assessing, and refining the models. In a health study, this plan design would incorporate fundamental care suppliers and staff, patients, and other providers and individuals inside the community within the research procedure. Key accomplices or partners take part as co-researchers in a venture (project), giving input approximately their needs, ways to address them, and ways to execute changes. These five research designs apply blended mixed strategies approaches to evaluations and assessments of investigative research models. Based on moral-ethical guidelines, the literature details their methods and procedures to layout the stream of activities through the use of shorthand documentation, and notation and reflects on qualities (strength) and limitations.

8.3Virtuesof Ethics-Based Mixed Research

Mixed methods analysts experience moral issues frequently however with varying levels of trouble and viability within the methodologies and strategies used to mitigate moral and ethical issues. Virtue ethics recognizes that there's a moral nature in all activities related to research (not only in ethical problems), including the conceptualization of the studies, the dispersion of work, and the way researchers treat the members of their team. Moral ethical issues are detailed as most habitually experienced, seen as challenging to mitigate, and effective strategies to address ethical issues. The key concerns are interesting and special challenges faced by blended mixed strategies analysts to arrange and plan for and appropriately respond to budding moral issues such as managing participant burden and privacy over information sources and utilizing practical communication and dispersal strategies and methodologies particularly while working with a multidisciplinary investigative research group (team). By being

pedestaled on moral-ethical values, employing a mixed-methods study has several merits, which are as follows:

Compares both quantitative and qualitative information: Mixed strategies are particularly beneficial in comprehending inconsistencies and flaws between quantitative upshots and qualitative results and discoveries.

Redirects participants' perspectives: The blended mixed methods offer a space to study participants and ensure those study discoveries and outcomes are ingrained in participants' understandings.

Nurtures academic/scholarly interface: These types of studies add breadth to multidisciplinary team research by empowering and encouraging the interaction of quantitative, qualitative, and mixed strategies academics.

Deliversprocedural adaptability and elasticity: Mixed strategies have incredible suppleness and are flexible to numerous study designs, such as observational studies and randomized trials, to explicatefurtherevidence than can be attained in the simplycomputable quantitative study.

Amasses huge andall-inclusive information: Mixed methods and strategies to emulateand replicatethe way people actually and logicallyamass information—by integrating quantitative and qualitative data. For instance, sportingaccounts regularlyassimilate quantitative data (scores or number of errors) with qualitative data (descriptions and imageries, and pictures of game highlights) to deliverthe entire story.

8.4 Boundaries of Pursuing Ethic-based Mixed Research

Mixed methods researchers experience different moral issues regularly with varying levels of inconvenience and adequacy within the strategies used to mitigate moral-ethical issues. Mixed methods studies are challenging to execute, particularly when they are used to assess complex interventions. Below are a few challenges and boundaries.

Upsurges the complication of appraisals: Blendedmixed methods studies are difficult to arrange, plan and execute. They need cautious arranging to portray and define all angles and facets of research, plus the study sample for qualitative and quantitative parts (identical, embedded, or parallel); timing (the sequence of qualitative and quantitative portions); and the plan for coordinating and integrating data. Integrating qualitative and quantitative data amid analysis is regularly a challenging phase for numerous researchers.

*Depends on a multiscious group (team) of researchers:*Organizingexcellentdiverse strategy and approach studies requires the involvement of team members from multiple disciplines who, in the service of the larger study, must be open to strategies and methods that will not be within their range of expertise. Further, finding qualitative specialists (experts) who are too at ease talking about quantitative studies and vice versa can be challenging in numerous situations. Given that each method must adhere to its benchmarks (standards) for rigor, ensuring the appropriate quality of each component of a mixed-methods study can be troublesome. For example, quantitative analysesneed bigger sample sizes to attain measurable statistical significance than subjective qualitative analyses, which require meeting the goals of saturation (not revealing new information by conducting more interviews) and relevance. Embedded samples, in which a qualitative subsample is embedded within a larger quantitative sample, can be useful in cases of an insufficient statistical resource.

Necessitatesbetter resources: Lastly, mixed-method studies are labor-intensive and necessitate moreassets and time than those needed to conduct a single-method study.It signifies that combining two methods in one study can be time-consuming and requires experience and aptitude in both quantitative and qualitative methods. Further, combining the two types of data implies that the researchers benefit from both the thorough, contextualized understandings of qualitative data and the generalizable, superficially substantial insights of quantitative data. The qualities of one type of data every so often mitigate the weaknesses of the other.

Ethical matters are crucial in all sorts of research. Notwithstanding the category of research, the researcher mustconsider both general research principles and those that are more specific to the type of research. When steering mixed methods research, it is critical to follow the standards of qualitative and quantitative research morals. In quantitative research, ethical standards avoid such things as the fabrication or adulterating and faking of data and thus, promote the pursuit of knowledge and truth which is the essential goal of research e.g. research and publishing ethics, data control, and manipulation, copyright infringement (plagiarism), publication duplication, and the consequences of scientific-logical offense (misconduct). In qualitative research, ethical standards and principles are centered on protecting research participants and the guiding foundation of “no harm”.

The amalgamation of quantitative and qualitative data in the form of a mixed-methods study has an incredible perspective to reinforce and brace the harshness and enhance the analysis and findings of any evaluation. By wisely selecting ethic based mixed-method design that ethically suits the evaluation’s questions

and meets its resource constraints, evaluators can encourage and facilitate more profound, more meaningful learning regarding the effectiveness and implementation of mixed models. Mixed strategies and methods research indeedneeds researchers to be heedful (aware) of and stick to the ethical guidelines and rules of both quantitative and qualitative research, it should not present a critical trial. Researchers must do everything conceivable to ensure that the results of the study are meaningful, valid, and substantial and they must do so to secure and protect the astuteness (integration) of the study.

Ending: It can be said that the logic and philosophy of science and the debates between realism and constructivism as ways of knowing, or between objectivity and subjectivity as stances of the inquirer are the imperative concerns of any research. At the same time, questions concerning the plausibility and sensibility of blending the philosophical substructures when we mix multiple methods remain one of the foremost congested areas in the theory of mixed strategies. Can a researcher simultaneously hold opposing, even competing, assumptions about what matters in human action? Is it believable for the inquirer to persuasively tack or make mind shifts between up-close and distant perspectives or between thinking about generalities and honoring contextual particularities? Critical concerns are the anthropologists' basic position and their readiness to consider the radical plausibility of non-intervention fundamentally inconsistent with the interventionism of politics and government programs?

What has been thought of as a methodology has been the busiest location of development in the mixed methods literature to date. Extraordinary fruition has been made on most mechanisms of what constitutes a social science methodology—purpose, design, sampling, methods choice, analysis, quality criteria, writing up, and reporting. Methods serve inquiry purposes. Consistent with all social science methodologies, there is widespread agreement in the mixed methods community that methodology follows from inquiry purpose and questions. Different sorts of mixed methods designs make meaning for different kinds of inquiry purposes and questions, for example, purposes of hypothesis testing or explanation, or purposes of understanding or democratization.

There has been substantialimprovement in the area of mixed methods design offering a representation of the crucial dimensions along which mixed methods designs can and do differ. The primary dimensions are featured in nearly all mixed-method design frameworks, typologies, or discussions. The secondary dimensions are featured in some of them. Triangulation, complementarity, development, initiation, and expansion—are directly related to mixed methods designs. Different designs serve different purposes. It is needed to differentiate between varied mixed methods design possibilities that comprise iteration, linkage, triangulation, and convergence. There has also been some work in the

area of integrated mixed methods data analysis, although this work has not yet been cohered into a widely accepted framework or set of ideas. Integrated analyses involve the joint and interactive analysis of data represented in different arrangements during the study's data analysis. In some mixed methods studies (for example, a triangulation study), the mixing happens only at the point of making inferences.

There is more consistency in the mixed methods literature on the problems warranting our inquiry results, although good answers to the challenges of creating mixed-methods investigation criteria are still under the developmental stage. One agreement that has been made is that methodological criteria of quality should come from whatever tradition that method is representing but that criteria for warranting inferences need to be blended or created in a new somehow. Mixed methods studies engender a ‘‘crisis of representation’’ ... all their own as they task researchers/writers to communicate across entrenched divides often separating writers from readers, in general, and qualitative from quantitative writers and readers, in particular. The hurdles of representation and writing in mixed methods inquiry contains combining or using quite different communication traditions that incorporate different technical criteria and norms, as well as different rhetorical and aesthetic criteria and norms.

Qualitative and quantitative investigators, especially, visit different ‘interpretive communities', with divergent understandings and outlooks of a research text or an evaluation report, in particular, what makes such a text or report pleasing and believable. Mixed methods studies thus apply questions that appeal to and produce the most convincing texts, especially when the anticipated readership of such texts is itself comprised of members from diverse communities. Around this stage, these challenges of presenting and writing are to be handled with a certain depth in judgment. Mixed methodologists interested in this area are encouraged to consider the benefits of a mixed representational approach. Such an approach would intentionally incorporate different forms of writing and displaying inquiry results—including such quantitative forms as graphs, tables, and figures; such qualitative forms as stories, poems, and performances; and even such spatial forms as maps and networks.

Not exceptionally much conceptually, there's an upheaval of interesting, provocative, and likely exceptionally good mixed-methods empirical practice. But maybe there is a previous question here,"What are the imperative issues of practice for mixed methods social inquiry?" In other social science methodologies, reasonable rules and real-world guidelines regarding how to ask great probe questions, build a compact and defensible suggestion from among the selections accessible, conduct suitable data handling—can be random or purposeful, and perform appropriate analyses. These are also matters of practice

for mixed-methods inquiry since the mixed-methods inquiry is composed of practices from other methodologies. How to perform a specific kind of sampling, for example, isn't a question special to mixed methods, although how to choose and legitimize and defend a mixed sample, one that assimilates representativeness and purposefully selected ‘‘best cases,’’. Appropriate ‘‘sample integration’’ is one of the legitimation criteria upon which the quality of mixed methods inquiry ought to be umpired. However, more crucial to the practice of mixed methods inquiry are practical rules and guidelines about how to mix. It is the blending/mixing that is particular to a mixed-method methodology, so our guidelines for practice are required to focus on this. It is essential to stress the practicalities (and conceptual challenges) of such data file exchanges.

A mixed-methods way of intelligence is coordination toward social inquiry that effectively summonses us to participate in discourse about varyingmeans of seeing and hearing multiple ways of making sense of the social world, and different stances on what is spirited and to be valued and cherished. Mixed methods rest on the presumptions that there are different genuine methodsof social inquiry and that any given approach to social inquiry is unavoidablylimited. A vigorous and superior understanding of the multifaceted and complex character of social phenomena can be obtained from the use of multiple approaches and ways of knowing. A mixed-methods way of thinking and research moreover generates questions, alongside possible answers; it creates results that are both smooth and jagged, full of relative certainties alongside possibilities and even surprises and shocks, offering some stories not yet told (Greene, 2005). In these ways, a mixed-methods way of thinking effectively engages researchers with diverse and differing qualities in service of both better understanding and more noteworthy equity of voice.In conclusion, it can be believed that the blended mixed strategies and methods approach of social inquiry can be a particular and distinctive methodology within the ethical conducts of social science as the mixed-methods approach holdsplentiful definitive traditions and has distinctive methodological constituents and distinctive indicators for high-quality research. Broadly common, a mixed-methods approach to social research unconventionally offers significant, profound, and conceivably motivational and catalytic chances to definitively lock in with the contrasts that matter in today’s disturbed and unstable world, looking for not so much merging and understanding and understanding as opportunities for respectful tuning in and deliberation.

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About the author and the book

Dr. Prakash Upadhyay is an Associate Professor of Anthropology at Tribhuvan University, Nepal. He is dedicated to the process, performance, and outcome of quality research with learning, inquiry, discovery, writing, and study together as a learner, teacher, and researcher. He has obtained five Master's degrees namely Anthropology, English Literature, History, Economics, and Political Science. He holds a Ph.D. in Anthropology and with different academic and research undertakings for career development, he was a postdoctoral researcher at Aarhus University, Denmark in 2013. He participates in conferences, seminars, research dissemination, publication, networking, promotion of research works in health, climate change, natural resource management and sociocultural change with various research institutions from universities in developed and underdeveloped countries. In Nepal, he has successfully led many research projects in different campuses of Tribhuvan University including Kalika Multiple Campus, Pokhara. He has reviewed and edited numerous research articles and international journals in anthropology, political science, and history. To date, he has had 300 international and national publications and is a dedicated partner in academic research programs and outreach events that help promote learning and support research scholars and academia.

The book The Craft of Constructing Social Research Project is a practicable, comprehensible, and real-world introduction to the philosophical roots of strategies and perspectives of social research, varied aspects of social research theory, methods, and practices to acquaint undergraduates, graduates, scholars, researchers, and beginners with the practical methods and techniques of basic social science research. It covers the nature of social research knowledge and the reasons for research, and the specific methods used to carry out effective social research. The book presents readers with the subjects of social sciences, particularly essential research strategies in sociology, anthropology, political science, economics, psychology, culture, history, communication studies, and linguistics. The cruciallandscapes of the book include shaping, structuring, and planning a social research project; concepts, techniques, and tools of social research; varied types of data and measurement skills; gathering and analyzing data to draw sound conclusions and the ethical issues involved in research.In broad-spectrum, the methods and techniques of social research have been presented in this book with balance and restraint, analyzing each method and tool by providing criticism and practical implications. The book provides prodigious power to understand social science research methods, concepts, and tools required to be able to choose better fieldwork, better data analysis, and better research reports. And this will help researchers pick out useful and interesting examples of attribution visualization and teach doers and knowledge seekers to connect theory with practical research while systematically presenting all relevant ideas, ethical codes, situations, and ethical dilemmas in fieldwork with examples from a variety of backgrounds. In nutshell, this book provides key guidelines to social science students, teachers, researchers, scholars, and authors to understand the process of scholarly research-creation, masterful knowledge analysis, and knowledge base skillful research practice.

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