LL.M.2.Sem.

RESEARCH. METHODOLOGY.
CHAPTER- Process of Data collection.

By.Banshlochan.Prasad.

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1. Introduction –

Research is a logical and systematic search for new and useful information on a particular topic. What data is to be collected? Where data will be found? How data will be collected and analysed? Are certain important questions implicit in every research study.

The method of procuring data for research is an independent segment of research design. Procedures used for data collection is extensively scrutinized. Existing data sources cause confusion in data selection if researchers do not posses basic knowledge of dealing with data at various stages, each of which may raise questions of validity. Inaccurate data collection can impact the results of a study and ultimately lead to invalid results.

There are various facts, data and information relating to research topic available in the world. Researcher is required to make the proper objective, logical and authoritative decision that what facts may be relevant for his study or not.

It is necessary in all data collection that elements of the research process be 'neutral' and not interferes with measurements of the variables. After selection of a principle of data collection, consistent application of standards within that method must be developed so that the measurement reflects the intended variable and is not biased by the methodology employed.[1] The terms 'method' and 'methodology' are frequently used in the context of legal research. They are sometimes used interchangeable to mean the same thing, but they are often used also to mean slightly different things. Therefore, it is important, to explain both terms. The Oxford English Dictionary define 'method' as "A special form of procedure or characteristic set of procedures employed (more or less

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systematically) in an intellectual discipline or field of study as a mode of investigation and inquiry, or of teaching and exposition." The term 'methodology' means techniques or group of methods employed in a particular field of study or activities.[2] In the context of this module we are primarily concerned with the methods of data collection commonly used in legal research.

2. Learning out come- Intended object of this module is to develop -

- Understanding about basics of data collection.
- Knowledge and practice on data collection methods in legal research.
- Analytical skills about the nature, quality and approaches of data
- Basic understanding of nature, authority and reliability of various sources of data.

3. Methods of Data collection in Legal Research –

Methodology followed in any research and methods forming part of methodology depends on some questions necessarily be answered as to the nature of data, their collection method and analysis process which may differ from one stream to another. In legal research field, research process is centric either on 'doctrinal method' or 'empirical method'.

Basically methods of data collection can be classified on following broad aspects as-

1. Nature of Research problem and Research objectives,
2. Authority of Data
3. Reasoning followed in data collection

On the basis of above three considerations research methods of data collection applied in legal research may be classified as-

1. Doctrinal and Empirical Method.
2. Primary and Secondary Data.
3. Inductive and Deductive Method

3.1. Doctrinal and Empirical Method –

Legal research studies can be classified on the basis of nature of data intended to be used in research. This classification can be made as doctrinal and empirical research methods.

3.1.1. Doctrinal Method-

Meaning of 'Doctrine' is necessary to explain here in their ordinary and broader sense so that a comprehensive approach can be developed by readers over all about 'Doctrinal Research Method' as approach used for data collection.

Term 'Doctrine' is derived from Latin word 'Doctrine', it is a codification of beliefs or a body of teachings or instructions, taught principles or propositions, as the essence of

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teachings in a given branch of knowledge or belief system. A belief (or system of beliefs) accepted as authoritative by some group or school. Belief is a cognitive content held as true. In a general sense, whatever is taught or laid down as a principle or true by any authoritative and credible source is doctrine.

Doctrine is also used to refer to a principle of law, in the common law traditions, established through a history of past decisions, such as the doctrine of self defence, or the principle of fair use. In every research basic object of researcher is to find out the facts and after observation and analysis of facts certain theory, propositions, philosophy or principles are propounded. Doctrinal research is one step advance then non doctrinal method where fact is observed in empirical social condition. In other words ultimate objective of data collection is to ascertain either factual or philosophical information. If such factual or philosophical information are available with religious, political, scientific, educational and legal authoritative and credible sources i.e., Scientists, religion text and masters, educationists, jurists, judges and academicians these informative sources can be the good source of data collection so as to meet out the objective of research. Various techniques and tools are available for approaching such credible information.

Doctrinal research is possible only where relevant and sufficient information exists and available on research topic and the information coming from credible source is assumed true, unless he has reason or scope of doubt as to the truthiness. Credibility of source is thought of personal in nature but it should be objective one. Standard of credibility of source of information may be decided on the basis of authority, experience, knowledge and other relevant considerations.

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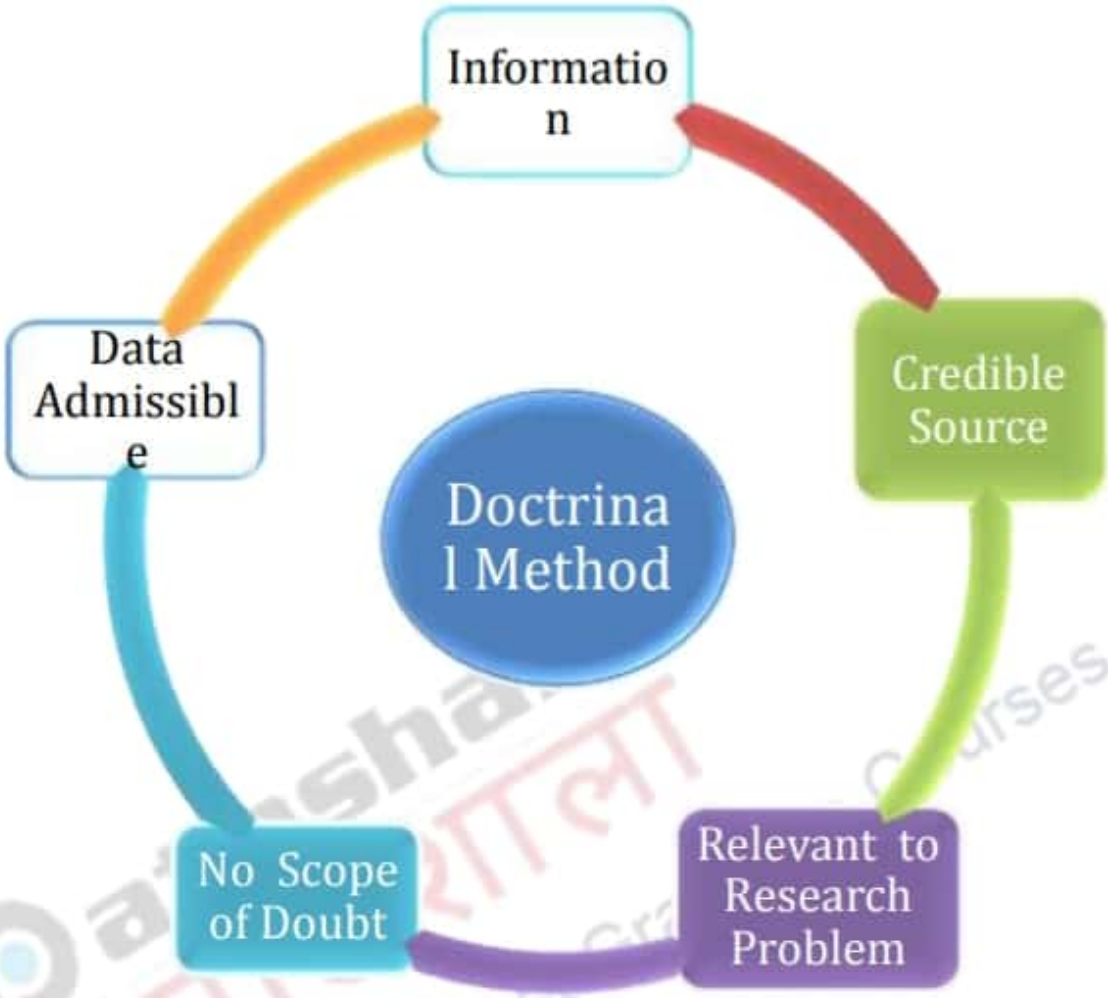
Figure 1 - Data Processing – A Doctrinal Approach



In doctrinal research ordinarily data is collected in Library and by directly attending Lectures, Conference, Seminar, Judicial, Legislative and Administrative proceedings and decisions, content analysis and case study. Sources of Information Technology and Mass communication have become prominent source of data collection within Doctrinal method.

Basic sources of data collection in doctrinal legal research are –

- Participation- Direct attending (Physical presence) lecture, seminar, conference, observation of judicial, legislative and administrative proceeding or their recording in written or electronic format.
- Publications- Books, Journals, Reporters, Magazines, News Papers, Juristic work, Reports of (Seminar, conferences, symposiums, legislative, judicial and administrative proceedings), literature containing factual & philosophical information. Articles, Research papers, thesis or dissertations. Reports, judgments and commentaries and case laws.

3.1.2. Empirical Method-

Empirical method is also known as Non-doctrinal method, is the source of knowledge by data acquired, verifiable and provable by means of observation or experiment. Researcher

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relies on his own experience with facts and variables in real social condition. Empirical data is more authoritative for research over doctrinal data.

Researcher has to undergo with hard work of finding sources, places, and situation so that he can observe the relevant facts. Research output is solely is depending on skill and quality of researcher or investigator. Empirical data collection is made by the researcher or investigator through his own observational and analytical skills. Self satisfaction of the researcher as to the reliability, relevancy and authority of data is must for admissibility of data in empirical research.

Empirical method is usually preferred with new research problems, where no possibility of acquire data through doctrinal method. Social problems not dealt by earlier researchers, no other doctrinal material is available on such problem in that case researcher has only option of empirical research. Sometimes, past theories, suggestions or assumptions become defective or insignificant due to changing social, environmental factors and modern technologies. Therefore, necessity arises to fresh look into the matter by investigation and observation of real social phenomenon and after keen and skilled analysis new theory should be propounded so that the social problem can be solved purposively.

Techniques commonly used for empirical data collection are Observation, Interview, and Survey and case study. These techniques are further sub classified according to nature, object and purpose of research. Empirical method is a factual investigation and philosophical conclusion where facts are observed, analyzed, realized and after due satisfaction accepted and processed in research for a valid conclusion.

Figure 2 - Data Processing – An Empirical Approach

Empirical method is comparatively more difficult as to the resources and time consuming then doctrinal research. It is opposite to doctrinal research in respect to reliability. In doctrinal research reliability of source is the major factor of data admissibility. In empirical method reliability of method is important.

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3.2 Primary and Secondary Data

In legal research process there are various sources available for obtaining data. But wattages of information depend on the nature of source of information. If, requisite data is obtained from the authoritative source it has wattage rather than information coming from non authoritative sources. On this basis research data can be classified into primary data and secondary data. In other words the data which is collected for the first time by direct observation is called primary data, and the data which is collected from existing records, publications, etc., is known as secondary data. **Difference between primary and secondary data is a matter of relativity, data which are primary in the hands of one is secondary in others hand.**

3.2.1. Primary Data –

Primary data is the data or information collected by the researcher directly from his own observation. Facts which are directly collected by the researcher in the society through his direct hard working towards discovery of fact are called primary data. Searching of factual information or philosophical information may fulfil from two sources as direct and indirect source. Direct source information is 'Primary data', and 'indirect source or second hand information is secondary data.

Information obtained from the person who has transacted such facts or was the direct party in the transaction and he has perceived all such transaction significant in the study. When researcher goes in the society for data collection through empirical research and his direct interaction with the persons who was the eye witness of transaction or party of the transaction from whom relevant information may be obtained and they can be expected to share true information known to them as direct source of information receiver. Similarly with the philosophical and theoretical information, deposition of the person who has formed such philosophy with logical reason is the primary data.

In doctrinal legal research basic authoritative sources of development in field of law are considered primary source as-

1. Legislative enactments
2. Judicial decisions
3. Customs

Above three are the most authoritative sources of legal data. Legal data from all other sources are non authoritative or least authoritative in relation to other authoritative source is secondary. The law emanating directly from the competent authority is termed as authoritative source. Authoritative sources are binding in force. In present time legislation and judicial precedents are the foremost primary sources of law. So far as custom is concerned, it may or may not be the primary source of law depending on its status.

3.2.2. Secondary Data –

Any such information in relation to which no primary source is available, but information is available with other non authoritative sources i.e., secondary sources. Consequently, information is to be obtained from secondary source only. Admissibility of data from secondary source is assumed on their reliability only. The Commentaries, digests, books, encyclopedias and treatises are regarded as the secondary sources of law. Secondary sources of law are admissible only as persuasive force. Where nature of data acquired through such sources is not disputed and possibility of introducing and proving them from primary source is practically difficult in that case secondary source can be good for data collection. Though, secondary data is non-authoritative but persuasive in nature. Ordinarily,

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secondary is easily available in varies sources whereas finding primary data is not that much easier and economy to access. Secondary data is useful in defining and explaining the terms used in the primary source.

For example –

Theory of Rule of Law was originally propounded by A.V. Dicey. For Indian study, if uti doctrine is studied. It is not possible to access the treatise of Dicey to understand its ut in Indian social context. Treatise published by Indian authors containing the reference Dicey can be easy for understanding concept in Indian social context. Though, the sour secondary but mostly preferred for individual conveniences.

3.3. Inductive, Deductive and Abductive Method

No fact occurs incidentally or in vacuum. Every fact has their history and certain relation with other facts in certain manner. In other way every incidence, fact or transaction has the correlation with other and such relations can be established only by way of logical reasoning. If researcher wants to establish any causal relationship between two variables he must have logical analysis and understanding so that he can decide what information is relevant in the matter? Or what is not? If the researcher has no logical answer for the data collected by him in the research his work has no reliability and validity. The logical reasoning does not come from the quantity of data it comes from quality of data.

Law is a normative science thus correlation of law and society is shown by reason based logic. After selection of research problem this is the first indispensable task to decide the nature and uses of theory whether research should begin with theory, or should theory itself result from the research? So that the proper theory of data collection can be opted.

3.3.1. Inductive Method –

Inductive is a reasoning; proceeding from particular facts to a general conclusion. Inductive reasoning is a way to make sense of things by making specific observations and then drawing broad conclusions based on those observations. Observation of relevant facts from fragmented and scattered facts to form any idea or general principle relating to research problem is inductive process.

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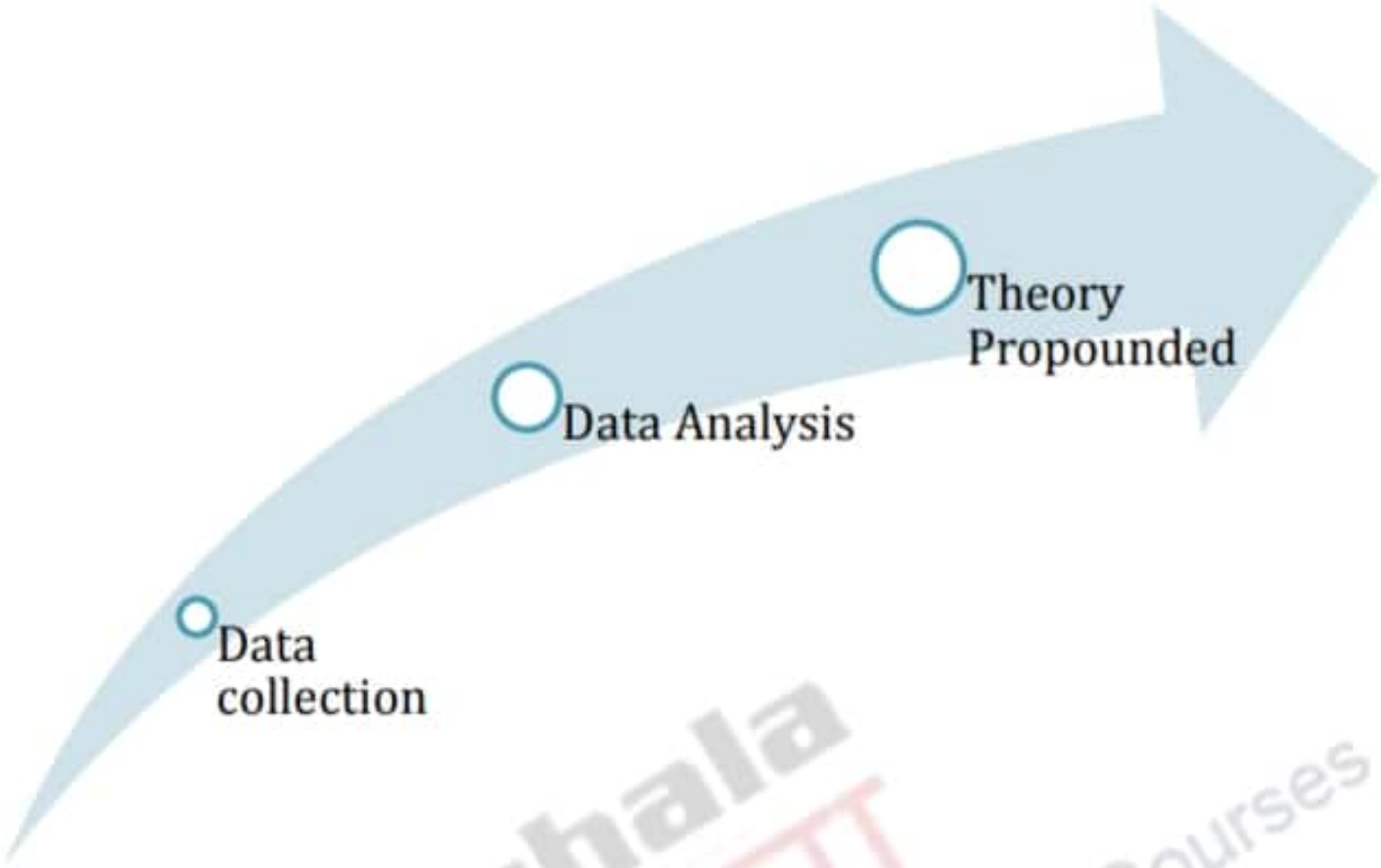
Figure- Deductive Reasoning



Where researcher does not possess basic knowledge as to the problem and result thereof so that he may form any theory, principles or assumptions then he moves on inductive approach in such cases either 'Null hypothesis' or research questions are drawn by the researcher. Through the inductive approach, plans are made for data collection, after which the data are analysed to see if any patterns emerge that suggests relationships between variables. From these observations it may be possible to construct generalizations, relationships and even theories. Through induction, the researcher moves towards discovering a binding principle, taking care not to jump to hasty inferences or Conclusions on the basis of the data. To ensure a degree of reliability, the researcher often takes multiple cases or instances, through, for example, multiplying observations rather than basing conclusions on one case.[3] Theories come after the observation of facts. The reasoning process that is used in theory building is called inductive reasoning.

3.3.2. Deductive Method –

Deduction means to reach an answer or a decision by thinking logically and carefully about the known facts. Selection of data from innumerable facts in life is quite difficult task. Therefore, On the basis of experience or knowledge some theoretical approach, idea or any assumptions are already prepared by the researcher which is shown in research hypothesis. Under focus of hypothesis certain indicators or key terms are determined by the researcher and those key terms or indicators are used to search data relating to research problem in hand.

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In doctrinal research all such key terms related to concept are drawn and data search includes as-

- Definition
- Related term
- Narrow term
- Broader term
- Synonyms
- History & chronology

On the basis of deductive proof on which hypothesis relied upon is already available for forming initial assumptions deduction begins to examine those proofs and hypothesis and data collection process is focused only on such data deduced accordingly.

For Example-

> Statement of Problem is *"Increasing crime among illiterate class"*, after review of literature hypothesis formulated as '*Illiteracy is the cause of crime*' certain indicators designed as knowledge of law, awareness towards legal discipline, importance of education in cognitive development and civic sense. Researcher strictly deduces the facts only on the basis of indicators.

The deductive approach moves towards hypothesis testing, after which the principle is confirmed, refuted or modified. Ordinarily hypotheses are structured to present correlation about two or more concepts where deductive method attempts to explain the relationship between them. Concepts themselves are abstract ideas that form the building blocks of hypotheses and theories. The first stage, therefore, is the elaboration of a set of principles or allied ideas that are then tested through empirical observation or experimentation.[4]

In deductive method it is predetermined that what data is required to test the theory, assumptions and hypothesis. Concept as to the relationship between variables has already been formed and data collection process is directed on such concept.

Research starts with a theory. Using the theory researcher predicts how variable exists in real world and data is collected for testing such theory. In fact it is theory testing or hypothesis testing method, reasoning process employed in theory testing is called "Deductive reasoning". Deductive reasoning is applied to search and compare observable data with the theory. If corroborated, the theory is assumed to have been established. Acceptance or rejection of hypothesis is finalised on actual outcome of data. If hypothesis rejected then theory is modified according evidential conclusion.

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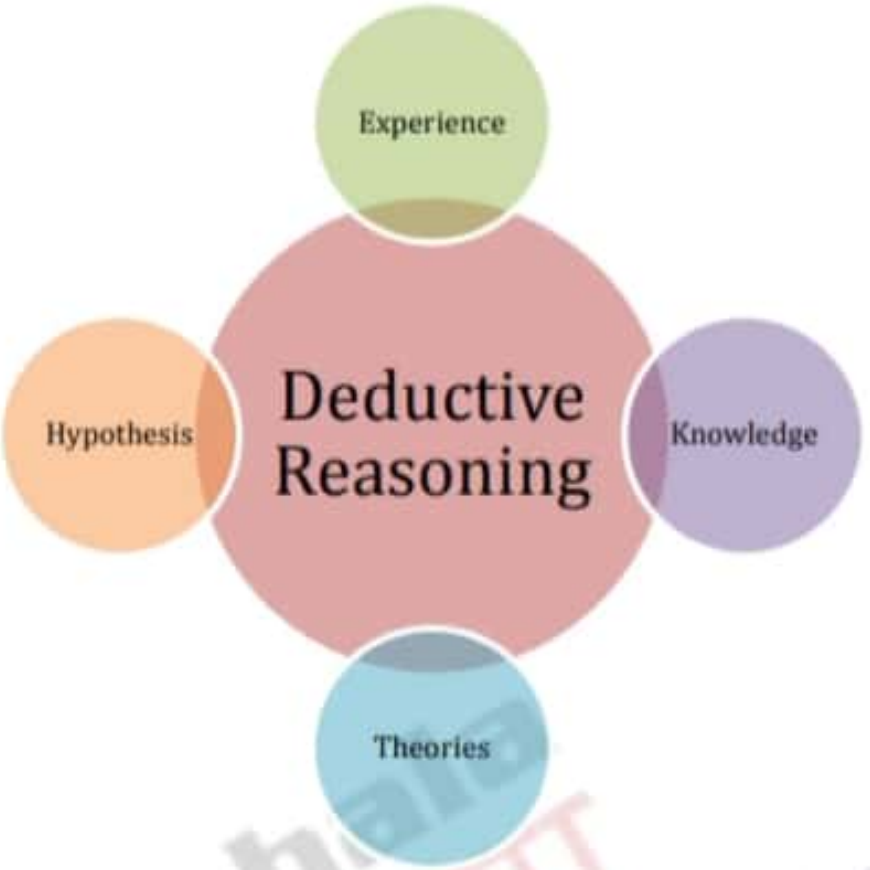
Figure- Deductive Reasoning



It is an approach from 'Generalisation to Data collection', generalisation of principles, theories or idea suggests certain indicators and data are collected on indicator basis.

Data collection by deductive approach contains three major steps:

1. Clarifying the concepts
2. Developing indicators
3. Evaluating the indicators

For Example –

> Statement of problem as - *"Corruption in society affecting Social Justice"*. Explain concept of social justice and Corruption with definition, nature and characteristics. The indicators of Social Justice and Corruption should be determined and facts and informati be gathered in the light of indicators.

3.3.3. Abductive Method –

The abductive logic of research was formulated by Charles Sanders Peirce. He claimed that we cannot ignore the process of discovery in science, leaving it to the history facts. The process of discovery that intends to provide an explanation of a new or surprising fact is subject to logical categories and criteria such as the process of proof. A new or surprising fact is one we did not expect to find, either because we did not know what to look for in the first place, or because the fact was beyond our expectations of what we were about to, or should find. Discovery is the process that leads us from the fact to an established scientific explanation of it. Peirce called the logical process of discovery "abduction", which can be suitable in situations where both deduction and induction approach fails.[5]

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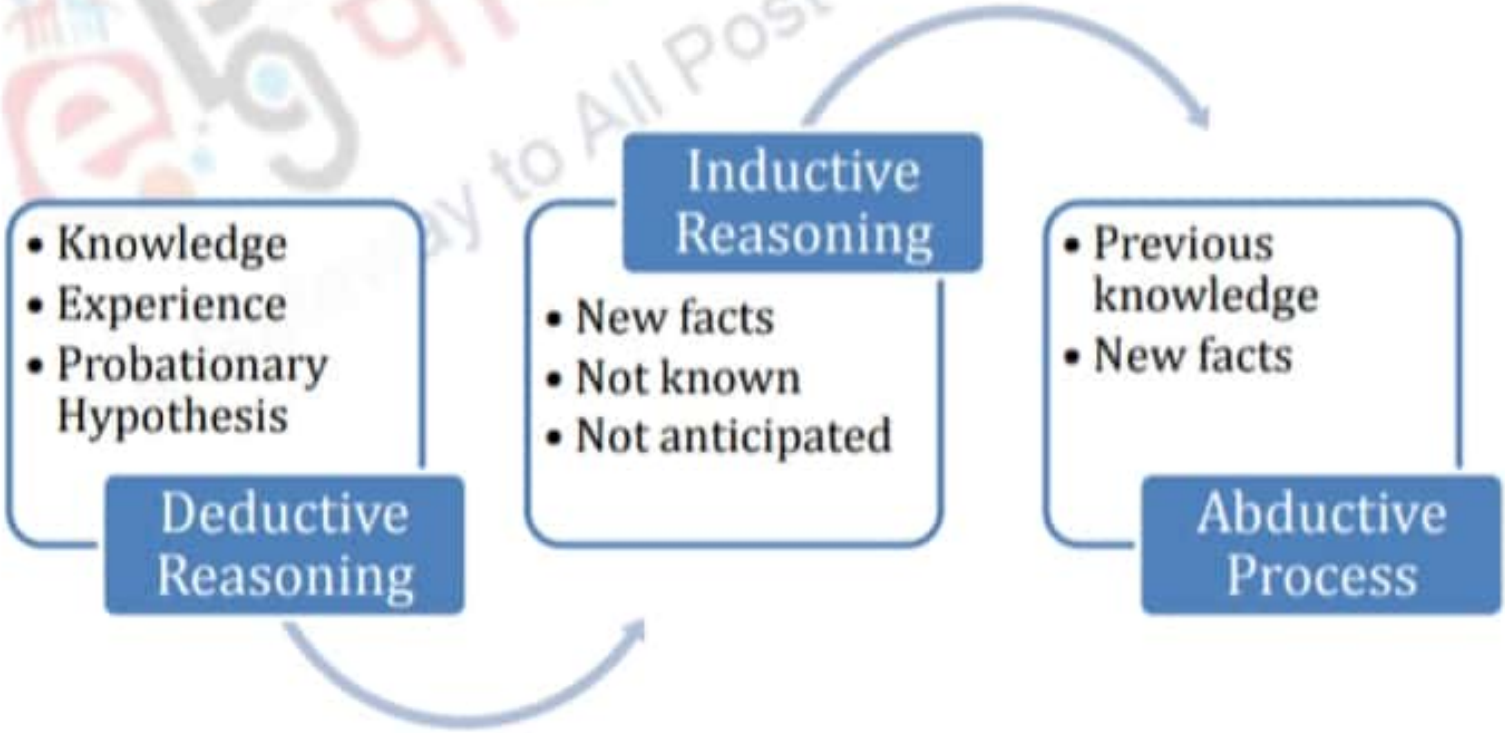
Abductive research logic is useful in cases in which the research variables are not fully known in advance. In all those cases where the researcher posses partial knowledge as to the subject matter of research but possessed knowledge is not sufficient up to the level of preliminary satisfaction so that the deductive logic can be applied in the matter of data collection.

In adductive reasoning certain indicators already prepared before data collection and primary approach of data collection is deductive one. But if any new surprising fact unexpectedly found during data collection and researcher has logical reason of their admissibility in research he can decide to induce such facts, data or information in his research. Such facts shall not be rejected by reason of their non identity, mismatching, in conformity with indicators, theory or assumptions. Allowing new facts in research out of the set of predetermined indicators can be of great importance to improve, modify and strengthen existing theory with new evidences which could not be anticipated earlier.

Necessity of abduction reasoning arises where the possessed knowledge, experience of the researcher is not that much strong so that any perfect testable theory, assumptions or hypothesis can be formed. Though, the theories, assumptions and hypothesis can be formed of probation basis which can modified, amended, accepted or rejected on the basis of new facts adduced in study during investigation.

Abductive reasoning is the derivative to inductive and deductive reasoning, where at outset data collection is guided by probationary hypothesis formulated on possessed facts which is further induced by new facts, not known and anticipated by the researcher.

Figure 2 Abductive Reasoning



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