RESEARCH APPROACHES

Research Approaches- Deductive

It is the one that people typically associate with scientific investigation. The researcher studies what others have done, reads existing theories of whatever phenomenon he or she is studying and then tests hypothesis that emerge from those theories

- Involves the development of a theory that is subjected to a rigorous test.
- deduction dictates that the researcher should be independent of what is being observed
- "**Top down"** approach- works from the **more general** to the **more specific**

Research Approaches- Inductive

- Theory Building
- Analyze the observed phenomenon by, Identify the general principles, structures, or processes underlying the phenomenon
- The purpose is to develop explanations
- "**Bottom up**" approach

- moving from **specific** observations to **broader generalizations** and theories
- particularly concerned with the context in which such events were taking place. Therefore, the study of a small sample of subjects might be more appropriate than a large number as with the deductive approach.
- **Can the research approaches be combined?**
- **Yes, driven by the purpose of your research**

Types of Research:

There are varieties of ways through which we may classify it into different categories.

(A) On the basis of nature of information:

On the basis of nature of information we can classify the research into two types;

(i) Qualitative Research: When information is in the form of qualitative data. It is concerned with qualitative phenomenon, i.e., phenomena relating to or involving quality or kind.

(ii) Quantitative Research: When information is in the form of quantitative data. It based on is the measurement of quantity or amount.

The following table provides a breakdown of the key features of each of these categorization of research method and data.

	Quantitative
Aim	The aim is to count things in an attempt to explain what is Observed.
Purpose	Generalizability, prediction, causal explanations
Tools	Researcher uses tools, such as surveys, to collect numerical data.
Data collection	Structured
Output	Data is in the form of numbers and statistics.
Sample	Usually a large number of cases representing the population of interest. Randomly selected respondents
Objective/subjective	Objective – seeks precise. Measurement & analysis
Researcher role	Researcher tends to remain objectively separated from the subject matter..
Analysis	Statistical

	Qualitative

Aim	The aim is a complete, detailed description of what is observed
Purpose	Contextualization, interpretation, understanding perspectives
Tools	Researcher is the data gathering instrument.
Data collection	Unstructured
Output	Data is in the form of words, pictures or objects
Sample	Usually a small number of non representative cases. Respondents. Selected on their experience.
Objective/subjective	Subjective - individuals' interpretation of events is important
Researcher role	Researcher tends to become subjectively immersed in the subject matter.
Analysis	Interpretive

(B) On the basis of utility of content or nature of subject matter of research:

On the basis of these criteria we can categorize the research into two categories.

(i) Basic/ Fundamental /pure or Theoretical Research: Its utility is universal.

(ii) Experimental or Applied Research: Its utility is limited. Applied (or action) research: aims at finding a solution for an immediate problem facing a society or an industrial/business organization, Fundamental (to basic or pure) research: is mainly concerned with generalizations and with the formulation of a theory.

(C) On the basis of approach of research:

We may classify research into two different categories.

(i) Longitudinal Research: Examples of this category are historical, Case study and Genetic research.

(ii) Cross-Sectional Research: Examples of this category are

Experimental and Survey Research.

(D) On the basis of method of research:

There are two main research strategies/approaches: qualitative and quantitative and within these there are several different research designs such as survey, experimental, historical, case study, ethnography etc. which the researcher will choose from.

On the basis of research **method/strategies** we may classify a research into five different categories.

(i) Philosophical Research: It is purely qualitative in nature and we are focusing on the vision of others on the content of research.

(ii) Historical Research: It is both qualitative as well as quantitative in nature and deals with past events.

(iii) Survey Research: It deals with present events and is quantitative in nature. It may further be sub-divided into; discretional, correlational and exploratory type of research.

Survey research involves inquiring information on numerous subjects of research (large population).It is suitable for extensive research where part of population is sampled to analyze and discover occurrences. The findings may be generalized to a larger population. Survey provides numeric descriptions of the population. May use both qualitative and quantitative techniques to collect data.

(iv) Experimental Research: This is purely quantitative in nature and deals with future events.

(v) Case-Study Research: It deals with unusual events. It may be qualitative as well as quantitative in nature depending upon the content**. Used to investigate or study a single entity in- depth in order to gain insight into larger cases.** It is therefore intensive study, descriptive and holistic in nature. Uses smaller samples for in-depth analysis. Case study seek for how and why answers and describe rather than predict.

Research Paradigms a paradigm as a view about the world and the universe and comprises a disciplinary matrix of ideas, practices, and beliefs. It legitimize certain ways of doing things. Qualitative approach is based on naturalistic/interpretivist paradigm, while quantitative approach is based on the positivist paradigm.

Positivist Paradigm

Based on the assumption of a single, objective reality which can be fragmented further into various components that yield independent and dependent variables. Variables are measurable using specific units such as interval, ratios, ordinal and nominal Variables may be studied independently but reflecting inter-relationships. Is of the view that positivism assumes an objective world which scientific methods can readily represent and measure, seeks and predict and explain causal relations among variables.

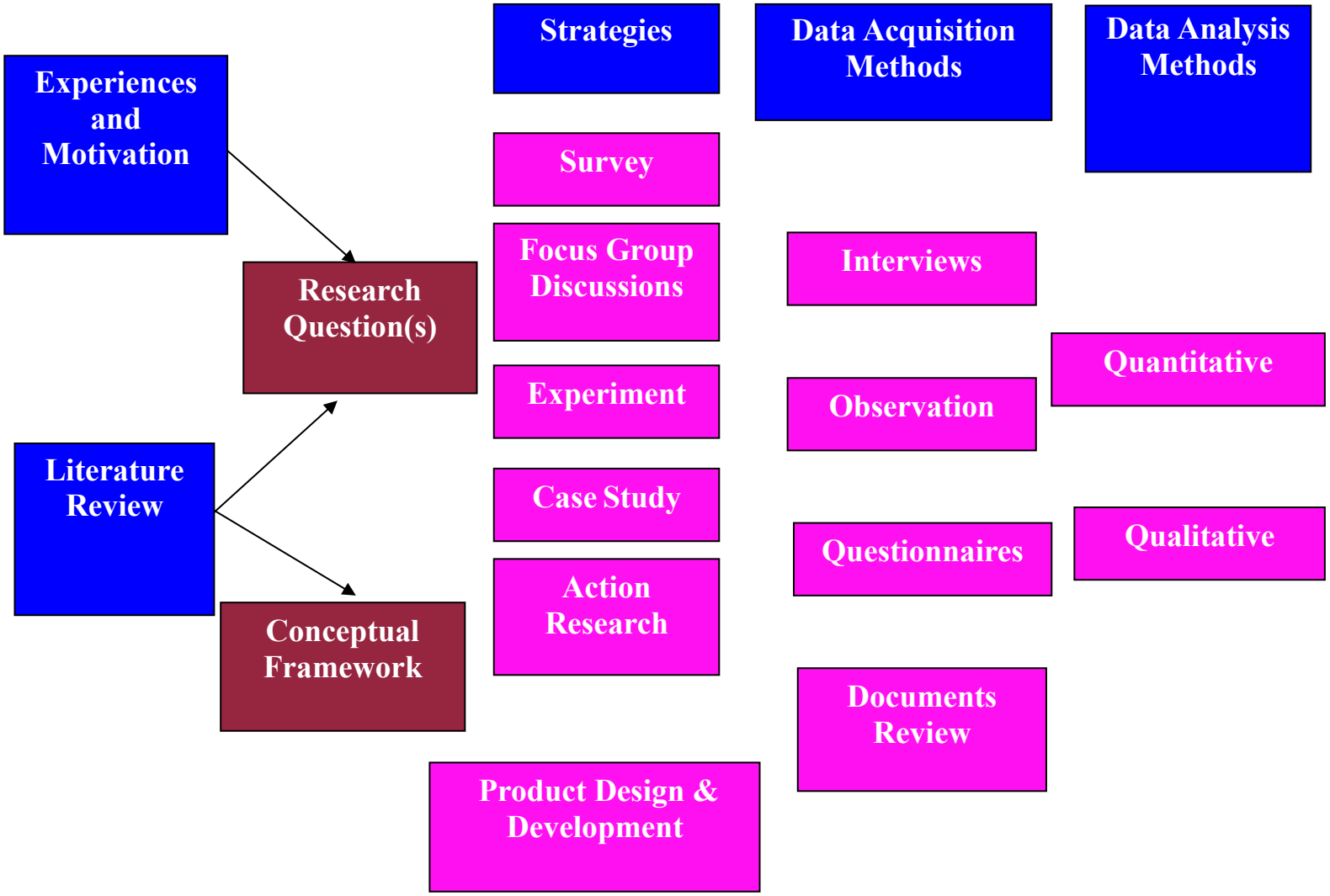
Interpretivist Paradigm

This paradigm assumes that the purpose of social science is to understand social meaning in context, and that humans are interacting social beings who create and reinforce shared meaning. That we experience reality in different way and anybody can generate knowledge. Based on perceived reality and that respondents have deep feelings/perceptions that should be investigated.

Research methods can be put into the following **three groups:**

1. In the first group we include those methods which are concerned with the collection of data. These methods will be used where the data already available are not sufficient to arrive at the required solution;
2. The second group consists of those statistical techniques which are used for establishing relationships between the data and the unknowns;
3. The third group consists of those methods which are used to evaluate the accuracy of the results obtained

Research Strategies



Importance of research

1. **Quantitative research** is asking **people for their own opinions** on something but in a structured way. The research has to be **structured so that you can produce statistics and hard facts**. Often with quantitative research a large survey of many different people would be carried out, this has to match the target market. Quantitative research typically includes **customer surveys and questionnaires.** Quantitative research is important

because it will help you to see if there is a market for your product also what type of people are your best costumers.

2. **Qualitative research** is to find out the '**why', rather than the 'how'** of the chosen topic. Qualitative research does this by analyzing unstructured information such as: **emails, feedback forms, interview transcripts and more.** Unlike quantitative research, qualitative research does not rely on statistics or numbers
3. **Secondary research** is existing research, as opposed to research collected directly from 'research subjects', that occurs when a project or topic requires a collection of existing data. Secondary research could include **previous newspapers, magazines, research reports, film archives, photo libraries, worldwide web, searching internet forums** and government and NGO statistics. Secondary research is carried out to **determine what is already known and what new data is required.** Secondary research is important so that we are able to compare existing research with new research if needed
4. **Primary research** includes **interview techniques, observations, questionnaires, surveys, types of questions, focus groups, audience panels**, participation in internet forums. Primary research it he opposite to secondary research. It is research that is collected from 'research subjects' Primary research is important as it **allows people to gather new information that is more relevant to the time.**
5. Self-generated research is where you collect information/evidence through your own record of events. I.e. video, audio or photographic. Self-generated research is important because it teaches a person how to collect information by themselves. A lot of university work requires self-generated research
6. Audience research is collecting information **from your certain target audience for a specific product, pitch/presentation and or service**. As audience research is based around your target audience it is a very important type of research. **Potential buyers are always the most important and knowing their feedback is valuable information**
7. Market research is organized research to gather information on **customers and buyers**. Market research includes social and opinion research. Market research is important because it allows companies to **get advantage over competitors**. Market research provides important information to identify and analyse the market need, market size and competition

8. Production research basically involves finding information that can be used to **discover the many aspects of a play**. For example, things such as; its context, author, critical analysis and interpretation, production history, images and sounds, and sources, influences, and analogues. Production research is important because it allows someone to **understand the play in more detail**

Purpose of Research:

- The purpose of research is to **discover answers to questions** through the application of **scientific procedure**.
- The main aim of research is to **find out the truth** which is hidden and **which has not been discovered as yet.**

objectives of research below:

(i) **To gain familiarity with a phenomenon** or to achieve new insights into it. (Studies with this object in view are termed as exploratory or formative research studies).

(ii) **To portray accurately the characteristics of a particular individual, situation or a group.** (Studies with this object in view are known as descriptive research studies).

(iii) To **determine the frequency with which something occurs** or with which it is associated with something else. (Studies with this object in view are known as diagnostic research studies).

(iv) **To test a hypothesis of a causal relationship** between variables.(Such studies are known as hypothesis-testing research studies).

Characteristics of a good research

1. **Orderly & systematic**
2. • A good research is orderly and is conducted in a systematic way. This is the single most important criterion in a scientific research.
3. **Based on professional issues**

   • The fundamental purpose of any research is resolve any current issues of a profession. • Therefore a good research must be based on the current professional issues.

   • A good research must come up with solutions to professional concerns.

4. **Begin with clearly defined purpose.**
   • A Good research is begun with a clearly stated purpose.
   • Only a clearly defined research with a clear purpose can be conducted in an effective manner.
5. **Emphasize to develop, refine & expand professional knowledge**
   • The main aim of any research is to develop the body of knowledge of a profession or define the existing knowledge.
   • Therefore a good research is directed towards expansion of professional body of knowledge.
6. **Directed towards of development or testing of theories**.
   • Theory development & testing is a systematic process of enquiry in any discipline. • Only a good research aims and develops or tests a theory.
7. **Problem solving**
   • The first and foremost importance of a good research is finding a solution to existing problem
   • A good research is directed towards finding an answer or pertinent solution for the emerging professional problems.
8. **Dedicated to develop empirical evidence**
   • The purpose of a good research is to generate empirical evidences, which can be used to improve the professional practices.
   • Therefore a good research strives to develop empirical evidences.
9. **Strive to collect firsthand information / data**
   • A good research is

Conducted by collection of data directly from subjects by different methods (Questionnaire, Interviews, Observation)

10. **Objective & logical in process**
    • A good and a successful research emphasizes on objective & logical process.
    • Research conducted through subjective means or in a haphazard manner will never lead to satisfactory results.
11. **Generate findings to refine & improve professional practice**

• A research cannot be considered successful if it fails to contribute towards professional practice.

• A good research strives to refine the elements of a profession as per the need of time.

12. **Use appropriate methodology**

• A good research is conducted following the selection of an appropriate methodology. • Unsuitable methodology will result in wrong findings and contributes to a weak research.

13. **Conducted on a representative sample**

• Generalization of research findings is possible if the study is conducted on a sample which has characteristics similar to the population of the study. • Therefore a good research is conducted on a representative sample.

14. **Uses appropriate methods & tools of data collection**

• A good research employs appropriate methods & tool for the conduct of the study. • Methods & tools of data collection varies depending on the nature & type of research.

15. **Uses valid & reliable data collection tool**

• Evidences generated from a research activity can only be considered valuable if they are generated through valid & reliable research tools. A good research utilizes a valid & a reliable tool to collect data from the subjects.

16. **Carefully recorded & reported**

In the absence of careful recording & reporting, evidences generated through a research may be covert in nature. A good research employs itself to generate quality empirical evidences & the evidences thus gathered are duly reported.

17. **Adequately analyzed & researched**

• Any research activity is considered to be poor if it fails to adequately analyses & researched.

• This activity is done using standardized & accepted methods of data analysis

18. **Patiently carried out**

• Research cannot be carried out in a hurry. It needs a long time & patience. • Therefore a patient endurance is the most important foundation of a good research.

19. **Researcher's expertise, interest, motivation & courage**

• A good research work largely needs the researcher's expertise, interest, motivation & courage of researchers.

• In the absence of these attributes, accomplishment of a good research cannot be carried out.

20. **Adequately communicated**

• The new knowledge obtained from a good research remains useless until and unless it is adequately communicated to its users or stakeholders. • Therefore a good research activity strives to communicate findings as widely as possible

Methods for searching for the truth

Experience Day-to-day personal experience of researcher may serve a good source of ideas to formulate a research problem. For example, a researcher observe violence suffered by a boy in a bullying. This experience may provide ideas to identify several research problems related to bullying.

Intuition is the ability to acquire knowledge, without recourse to conscious reasoning.

Reasoning and theory

Theory is set of assumptions about the causes of behavior and rules that specify how those causes act. Designed to account for known relationships among given variables and behavior, theories generate new research questions through deductive reasoning. A scientific theory can be a potent source for research ideas

Authority. Perhaps one of the most common methods of acquiring knowledge is through authority. This method involves accepting new ideas because some authority figure states that they are true. These authorities include parents, the media, doctors, Priests and other religious authorities, the government, and professors.

Literature

Your research resources can come from your experiences; print media, such as books, brochures, journals, magazines, newspapers, and books; and CD-ROMs and other electronic sources, such as the Internet and the World Wide Web. They may also come from interviews and surveys you or someone else designs.

Contemporary issues

Refers to an issue that is currently affecting people or places and that is unresolved. A geographic issue refers to a topic, concern or problem, debate, or controversy related to a natural and/or cultural environment, which includes a spatial dimension

Scientific methods

Experiments determine scientific truth. The scientist usually learns about nature by using controlled experiments in which only one thing at a time is varied to determine whether or not a particular situation, feature, or circumstance can be determined to be the cause of an observed effect.

Research process

1 Define research problem
2 Review the literature
3 Review concepts and theories
4 Review previous research finding
5 Formulate hypotheses
6 Design research (including sample design)
7 Collect data(Execution)
8 Analyze data (Test hypotheses if any)
9 Interpret and report

Research proposal writing

A research proposal is an overview of what researcher want to study.it is made up of the **1st 2nd and 3rd** chapters of a project report

1. Introductory chapter
2. Literature review
3. Research design and Methodology

In Research proposal we don't use past tense but **present** and **future** tenses.

Introductory chapter (Chapter1)

1.0 introduction

1.1 Background of the study

1.2 Statement of the problem

1.3 Purpose of the study

1.4 Objectives of the study

1.5 Research Questions and /or Hypotheses

1.6 Significant of the study

1.7 Scope

1.8 Limitation of the Study

1.9 Basic Assumptions

2.0 Definition of Terms

Introduction chapter (Chapter1)

The research tries to justify to his leaders the reason why he has chosen the given research problem for the topic. The researcher tries to prepare the mind of readers for more discussions

1.0 Introduction

1.1 Background to the Study

Here you state the main ideas which motivated you to carry a study. It can be a theoretical background in other words it outlines the history of the subject matter under investigation. The evolution of the research problem; how the researcher became fascinated with the problem. Describe the specific situation surrounding the research problem, using facts from the literature to support various arguments. In this section also, the student researcher tries to ascertain the suitability and feasibility of the study, concluding from the sufficient evidences drawn from the previous literature.

1.2 Statement of the problem

Here you state problem you are going to study or to solve. The Problem Statement, as it is otherwise described, is the reasonable conclusion of the problems/issues raised in the Background to the Study. The idea is that while the Background to the Study offers a wider or global perspective/standpoint to the subject matter of the research, the Problem Statement makes

assumptions from there and concludes on the specifics as they relate to the specific investigation being conducted.

1.3 Purpose of the study

The Purpose of the Study **illustrates what the study will do, which should reflect the statement of the problem**. The purpose also discusses how you will conduct your study and the kinds of comparisons you will make.

1.4 Objectives {Purpose} of the Study

An objective of the Study is strongly connected to the Research Problem. The Objectives of the Study, which is sometimes described as Purpose, stand for the aims of carrying out the investigation and could be categorized into general and specific.

The general objective describes the overall aim of a research project whereas the specific objective is concerned with the comprehensive list of intentions concerning what the research stands to accomplish at the end of the project. Typically, the specific objectives are stated in the form of declarative statements for example, the statement should start with “to examine”, “to analyze”, “to determine”, “to assess”, “to find out” etc. The Research Questions usually take the form of interrogative statement, the Objectives present the same thing, but in the statement form.

1.5. Research Questions and/or Hypotheses

Typically, these come immediately after the Research objectives because of their strong relationship. Research Questions is presented just like interrogations seeking to create specific relations among the main variables of investigation.

As well, the Research Questions usually serve as the foundation from where the questionnaire items/questions would ultimately be derived. The difference between the two is that the items in the questionnaire offer a further breakdown of each of the research questions to a greater specification.

Hypothesis is a wise guess.e.g. There is a difference between student social reasons and performance. They are not the same as Research Questions even though they are sometimes used to substitute each other. In other words, it is not unusual to find projects which have both as well as others which have only one of them. Since they are not the same, they are not expected to replace each other By meaning, a Research Hypothesis is a clear, specific statement whose

validity and workability can be tested by means of scientific method. Being a declarative statement of prediction, it tries to determine the relationship or difference that exists between one variable and the other; and to what degree. It is a form of clever guess or supposition regularly derived from the results of previous studies and/or theories originating from the literature.

1.6. Significance of the Study

Who are the beneficiaries of the study e.g. gov, Ngo, Nation e.t c. It is anticipated that every research project must have something new to contribute to knowledge in that research field, no matter how small. In point of fact, no research should take place if it will not contribute anything to knowledge; as this represents the major feature of all research endeavors.Consequently, this section is expected to clarify the possible benefits of the research and to whom such anticipated benefits would be meant

1.7. Scope of the Study

The scope of the study basically refers to the level of coverage of the research subject being investigated and the good statement of the problem will act as a helpful guide to doing this. That means, if the problem had been properly stated at the beginning, it helps, certainly, in defining the scope of the research. That is why the scope of the study is partially dependent on the title of the research project.

1.8. Limitation of the study

The limitation of the study represents the things and issues that constituted challenges in the process of investigations.

1.9. Basic Assumptions

Assumptions are only mere statements, which are frequently, not subjected to any testing. They are, more or less, ordinary statements that are taken for granted. They cannot replace the Hypotheses; yet, they tend to duplicate the Hypotheses, because they are fairly similar.e. g social economics.

2.0 Operational Definition of Terms

This section of the Chapter one (introduction) is used to offer a kind of working definition to all the concepts, which would be operationally used in the course of the research. The notion is that there are some terminologies, which have been “adapted” and so utilized restrictively for the purpose of the research project. This implies that such terminologies would mean something somewhat different from the one adapted under a different circumstances; therefore, the name Operational Definition of Terms.