Business Research Methodology

MD. KAZI HAFIZUR RAHMAN

LECTURER

DEPARTMENT OF BUSINESS ADMINISTRATION

UNIVERSITY OF GLOBAL VILLAGE (UGV)

COURSE OUTLINE

- ❑ Business Research Methodology
- ❑ Course Code: 0417-634
- ❑ Total Credit: 3 Hours
- ❑ CIE Marks: 90
- ❑ Marks: 60
- ❑ SEE Exam (SEE): 3 Hours

Course Learning Outcomes (CLO)

After successful completion of the course, the students will be able to:

1 Understand research, business research, criteria of good research, types of research, and problems encountered by researchers in Bangladesh. Explore different steps of a research process.

2 Learn how to find, review and evaluate literature related to his/her research area. Learn about research design, how to select research problems, techniques involved in defining a problem and steps in formulating a research problem.

3 Identify variables and the types of variables. Understand hypotheses, types of hypotheses, and how to test hypotheses.

4 Analyze the legal and regulatory frameworks that shape industrial relations in organizations, including labor laws, collective bargaining, and employment contracts.

After successful completion of the course, the students will be able to:

5 Identify different types of data collection methods. Write a research proposal.

6 Understand how to collect data, analyze data and prepare the final report. Demonstrate the ability to prepare and present a well-structured research report, incorporating appropriate formats, tables, graphs, citations, and bibliography.

:

● Saunders, M., Lewis, P., & Thornhill, A. Research methods for business students. Pearson education.

● Uma Sekaran and Roger Bougie, Research Methods for Business: A Skill-building Approach (7th Ed.). Jhon Willey and Sons, Inc., 2016.

● Ranjit Kumar, Research Methodology: A Step-by-Step Guide for Beginners SAGE Publications Ltd. 2011.

● C.R. Kothari, Research Methodology: Methods and Techniques (2nd Ed.). New Age International Publishers,2004.

.

The Essence of Research: A Comprehensive Overview

by Md. Kazi Hafizur Rahman
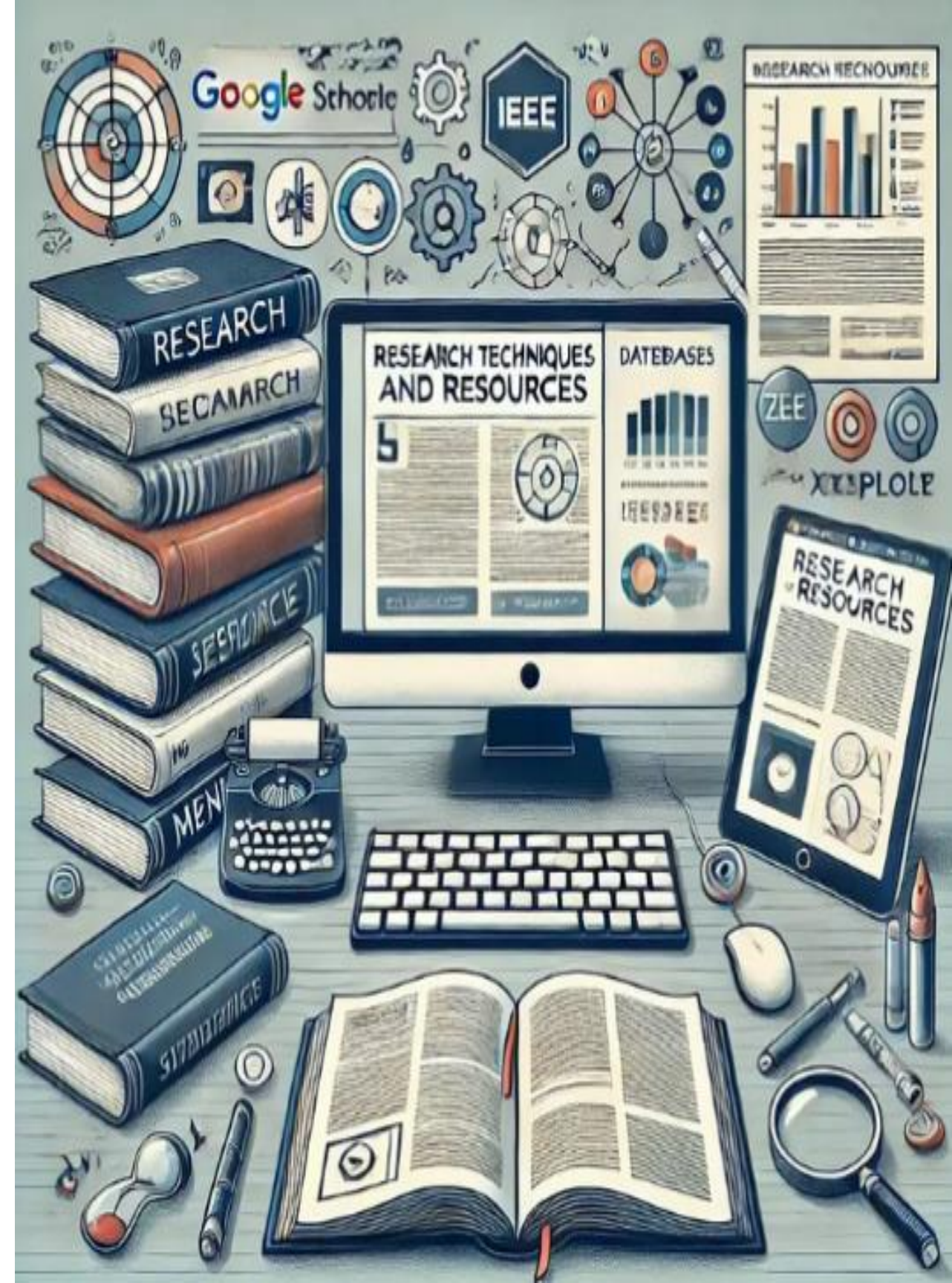
Research

- Research is the systematic process of investigating and studying a particular topic, question, or problem to gain new knowledge, verify existing knowledge, or develop new theories and solutions. It involves a structured approach to gathering, analyzing, and interpreting data or evidence to answer specific questions or test hypotheses.
- 'Something that people undertake to find things out in a systematic way, thereby increasing their knowledge' Saunders et al. (2009)
- The word research is composed of two syllables, re and search. The dictionary defines the former as a prefix meaning again, anew or over again and the latter as a verb meaning to examine closely and carefully, to test and try, or to probe. Together they form a noun describing a careful, systematic, patient study and investigation in some field of knowledge, undertaken to establish facts or principles (Grinnell 1993: 4).
- Grinnell further adds: 'research is a structured inquiry that utilizes acceptable scientific methodology to solve problems and creates new knowledge that is generally applicable.' (1993: 4)

Key Characteristics of the Research Process

Controlled

Ensures the clear establishment of cause-and-effect relationships by minimizing the influence of extraneous factors. While more feasible in laboratory settings, social sciences often quantify uncontrolled influences to enhance reliability.

Rigorous

Research requires meticulous attention to detail, ensuring that all procedures and methodologies are appropriate, relevant, and justified. The degree of rigor varies across disciplines, with physical sciences often adhering to stricter controls compared to the more variable conditions in social science research.

Systematic

Research follows a logical sequence of steps, ensuring that each phase of the study builds upon the previous one. This structured approach prevents a haphazard methodology, fostering consistency and coherence throughout the investigation.
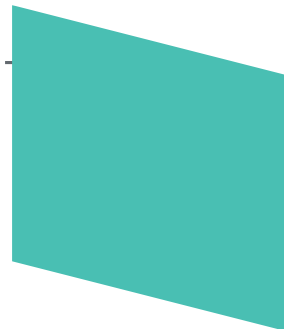
Valid and verifiable

Research ensures that its conclusions are accurate and can be replicated by other researchers. Validity strengthens the credibility of the study, providing confidence in its outcomes and supporting broader application of its findings.
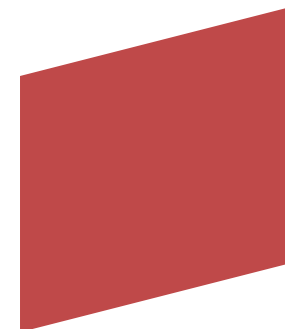
Empirical

Research is grounded in real-world observations and evidence. This characteristic ensures that conclusions are not based solely on theoretical speculation but are supported by tangible data, enhancing the study's practical relevance and reliability.

Critical

Research involves thorough scrutiny of the processes and methods used, aiming to identify and eliminate flaws. By standing up to rigorous evaluation, the research process ensures robustness and credibility, making the findings more likely to withstand scrutiny from peers and stakeholders.
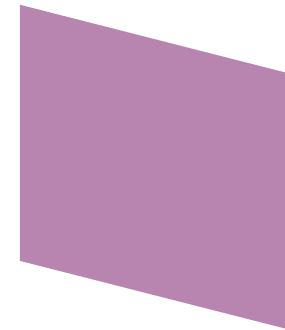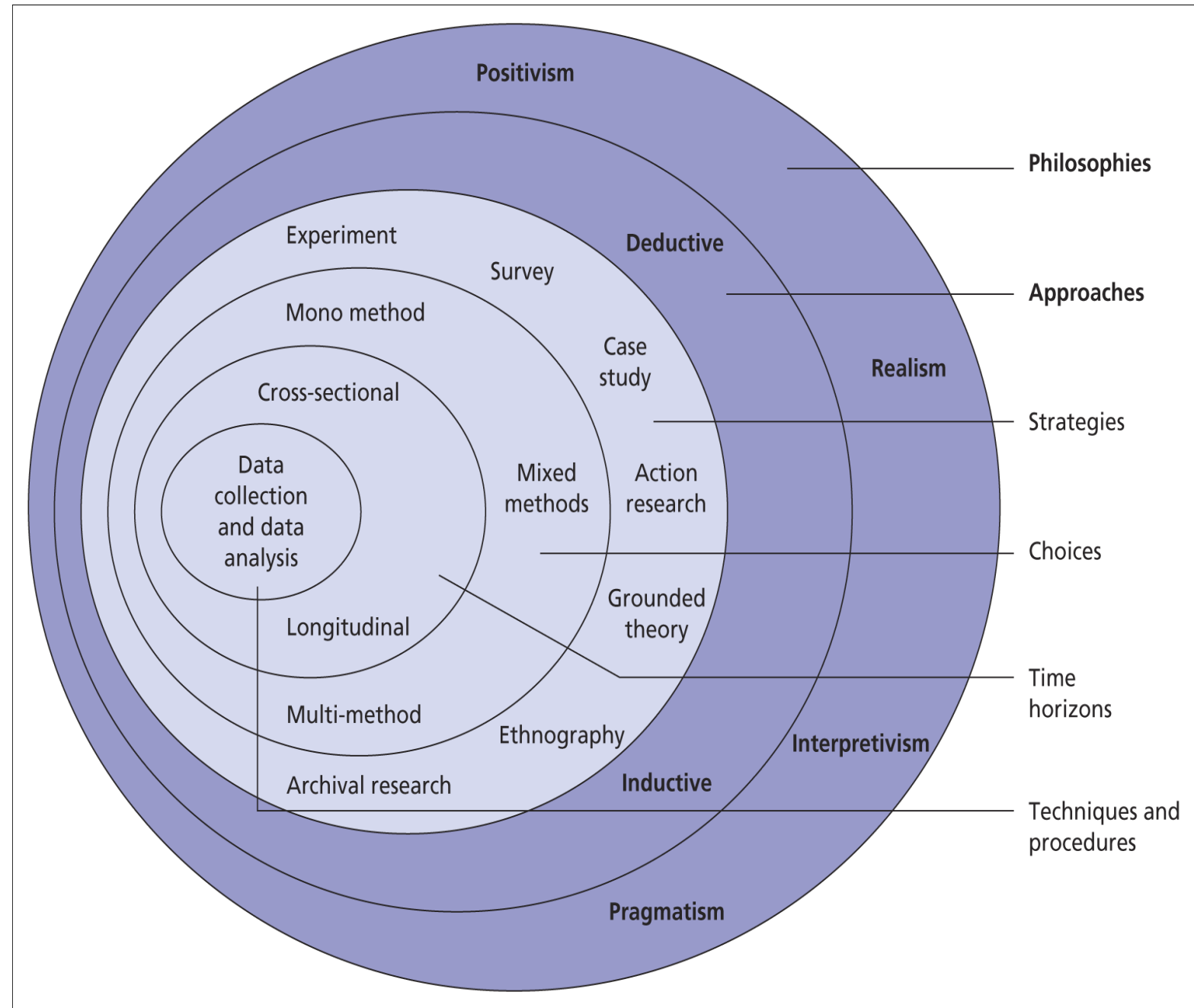
The Research 'Onion'

'Research philosophy is an over-arching term relating to the development of knowledge and the nature of that knowledge'

Saunders *et al*, (2009)

Saunders *et al*, (2008)

Aspects of Philosophy in Research

Positivism – The Stance of the Natural Scientist

- Positivism is a research philosophy rooted in the natural sciences, emphasizing the use of observable and measurable data. Researchers adopting this approach believe that reality is objective and can be studied using structured methodologies such as experiments, surveys, and statistical analysis. It seeks to uncover universal laws through cause-and-effect relationships. For instance, in business, positivism might involve testing the effect of pricing strategies on consumer purchasing behavior using quantitative data.

Interpretivism – Researchers as 'Social Actors'

- Interpretivism focuses on understanding the subjective meaning of human experiences and social phenomena. Researchers in this paradigm act as 'social actors,' aiming to comprehend the perspectives and contexts of the individuals or groups being studied. It often employs qualitative methods such as interviews, case studies, and ethnography. For example, a researcher exploring workplace culture might use interpretivism to understand employees' perceptions and interactions.

Aspects of Philosophy in Research

Pragmatism – A Practical and Flexible Approach

- Pragmatism views research as a tool for solving practical problems, emphasizing outcomes and usefulness over strict adherence to philosophical doctrines. Pragmatic researchers are flexible, often integrating qualitative and quantitative methods to address research questions effectively. For instance, a business researcher investigating customer satisfaction might use surveys (quantitative) alongside focus groups (qualitative) to provide comprehensive insights. Each philosophy shapes how researchers approach their studies, choose methods, and interpret findings, depending on the nature of the research problem and its context.

Research Philosophy

Positivism – The Stance of the Natural Scientist

- Positivism is a research philosophy rooted in the natural sciences, emphasizing the use of observable and measurable data. Researchers adopting this approach believe that reality is objective and can be studied using structured methodologies such as experiments, surveys, and statistical analysis. It seeks to uncover universal laws through cause-and-effect relationships. For instance, in business, positivism might involve testing the effect of pricing strategies on consumer purchasing behavior using quantitative data.

Interpretivism – Researchers as 'Social Actors'

- Interpretivism focuses on understanding the subjective meaning of human experiences and social phenomena. Researchers in this paradigm act as 'social actors,' aiming to comprehend the perspectives and contexts of the individuals or groups being studied. It often employs qualitative methods such as interviews, case studies, and ethnography. For example, a researcher exploring workplace culture might use interpretivism to understand employees' perceptions and interactions.

Paradigms of Research

- A research paradigm is a philosophical framework that a research is based on. It offers a pattern of beliefs and understandings from which the theories and practices of your research project operate.

- A research paradigm is a methodology a model, or an example to direct research. It is a system of considerations, convictions, or understandings inside which speculations and practices work. It is a component of a researcher's opinion on improving information. In short, a research paradigm is a course outlining the research.
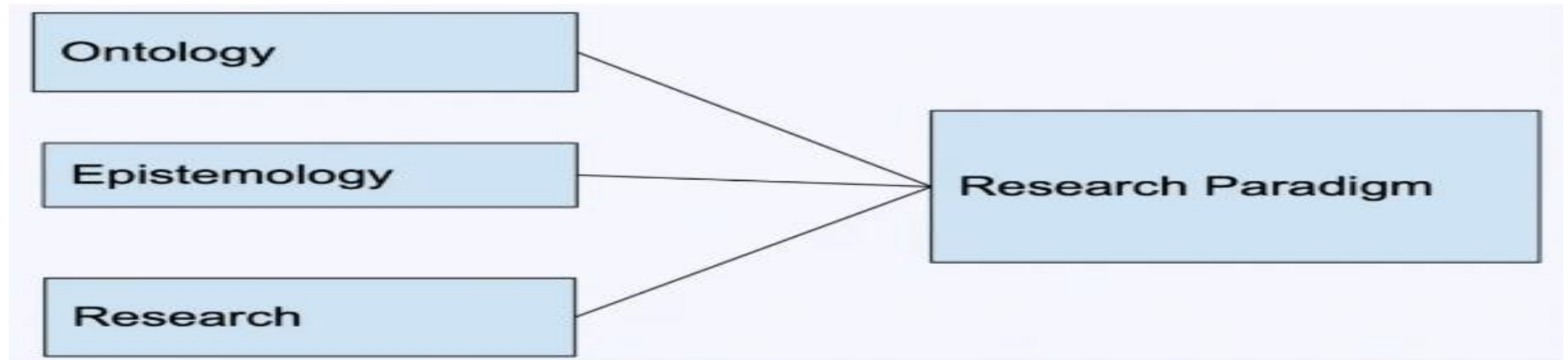
Ontology

- It is concerned with the nature of reality. This raises the questions of the assumption's researchers have about the way the world operates and the commitment held to particular views. The two aspects of ontology we describe here will both have their devotees among business and management researchers, In addition, both are likely to be accepted as producing valid knowledge by many researchers

- The first aspect of ontology we discuss is objectivism. This portrays the position that social entities exist in reality external to social actors concerned with their existence.

- The second aspect, subjectivism holds that social phenomena are created from the perceptions and consequent actions of those social actors concerned with their existence

- For example, a workplace report – asking one to question whether it describes what is really going on, or only what the author thinks is going on.

Epistemology

- It concerns what constitutes acceptable knowledge in a field of study.
- Closely coupled with ontology and its consideration of what constitutes reality, epistemology considers views about the most appropriate ways of enquiring into the
- nature of the world (Easterby-Smith, Thorpe and Jackson, 2008) and 'what is knowledge and what are the sources and limits of knowledge' (Eriksson and Kovalainen, 2008).

Research Methodology

Research methodology is the framework of techniques and principles employed to systematically plan, conduct, and analyze a research study. It serves as the backbone of any investigation, ensuring the process is structured, logical, and scientific.

It encompasses:

1.**Philosophical Foundations**: The researcher's stance on ontology and epistemology, shaping the approach (e.g., positivism or interpretivism).

2.**Approach**: Qualitative, quantitative, or mixed-methods, depending on the nature and objectives of the study.

3.**Tools and Techniques**: Methods for collecting data (surveys, interviews, experiments) and analyzing results (statistical tools, coding).

4.**Ethical Framework**: Guidelines to ensure integrity, respect, and fairness in the research process.

In essence, research methodology not only answers the "what" and "how" of conducting research but also addresses the "why" behind the selected approaches, ensuring the study's credibility and relevance.

Research Method vs Methodology

Aspect	Research Method	Research Methodology
Definition	Techniques or procedures used to collect and analyze data.	The systematic framework or principles guiding the selection and application of research methods.
Focus	Practical tools and processes (e.g., surveys, experiments).	The theoretical analysis of methods, justifying their use in research.
Scope	Narrow: Focuses on the "how" of data collection and analysis.	Broad: Explains the "why" behind choosing specific methods and the research design as a whole.
Nature	Practical and application-oriented.	Philosophical and theory-oriented.
Purpose	To gather and process data for research questions.	To establish the rationale and underlying assumptions of the research process.
Examples	Surveys, interviews, focus groups, statistical tests.	Positivism, interpretivism, mixed-methods framework, qualitative vs. quantitative approach.
Relationship	A subset of methodology.	An overarching system that encompasses and justifies the chosen methods.
Documentation	Includes specific procedures and protocols for data collection and analysis.	Includes discussion of epistemology, ontology, and the broader research strategy.

Research Approaches

Deduction

Deductive research starts with an existing theory or hypothesis, often based on a literature review. Researchers design a strategy to test this theory, typically employing quantitative methods like surveys, experiments, or structured observations.

The aim is to confirm or refute the initial theory.

For instance, a study on the impact of leadership style on employee productivity may begin with a theoretical framework from organizational behavior literature.

Induction

Inductive research begins with data collection to explore a phenomenon, identifying patterns, themes, or relationships.

This process leads to the development of a new theory or conceptual framework. Qualitative methods like interviews, focus groups, or ethnography are often used.

For example, a researcher might analyze interviews with entrepreneurs to develop a theory about the traits contributing to startup success.

Research Approaches

Abduction

Abductive research combines aspects of both deduction and induction. Researchers collect data to explore phenomena, identify themes, and explain patterns.

The insights are then used to generate or modify an existing theory, which is subsequently tested through additional data collection.

For instance, studying customer behavior in retail to identify buying patterns and refining a theory about consumer decision-making processes.

Types of Research: Three Perspectives
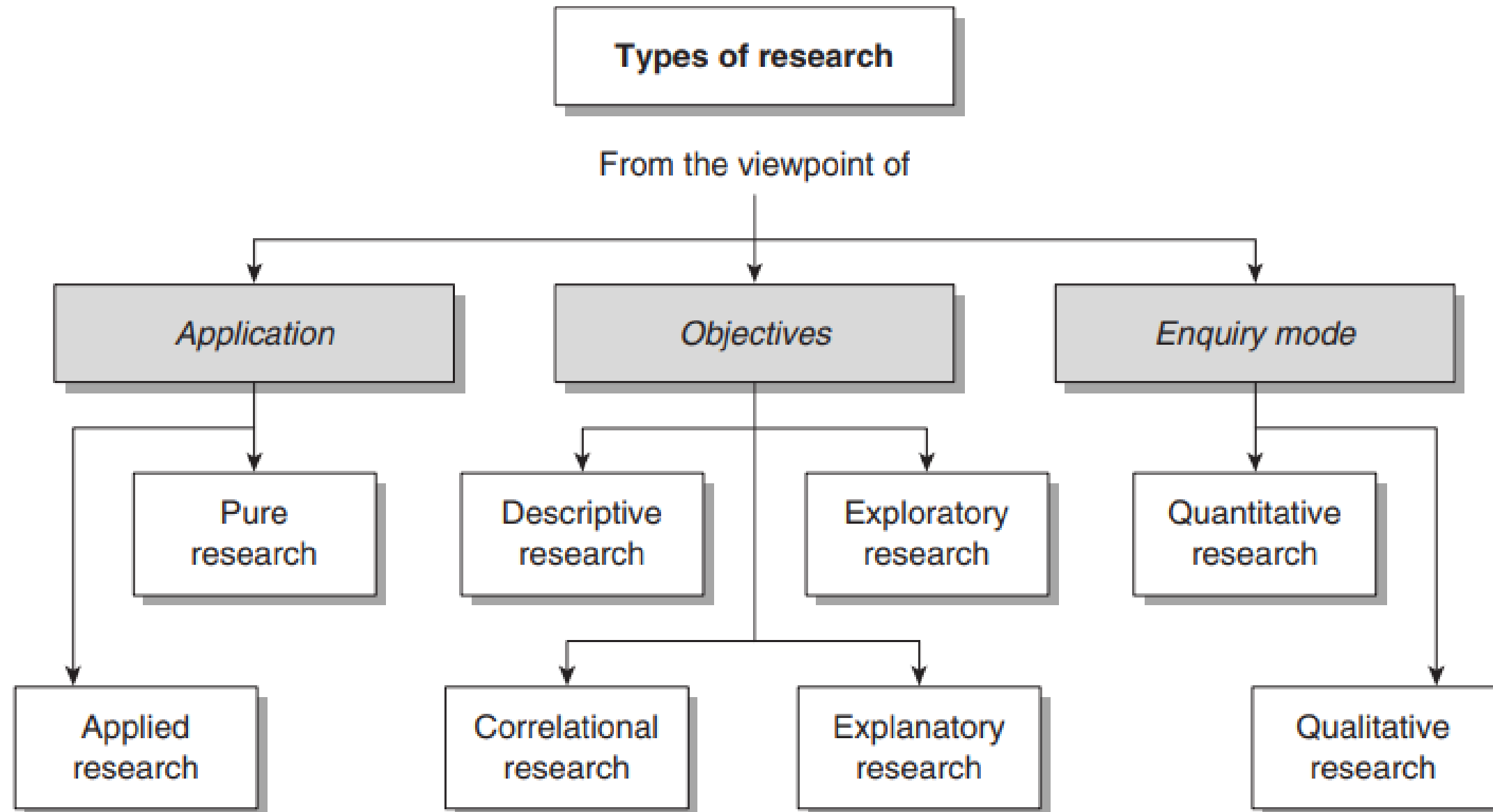
Types of Research: Three Perspectives

Application Perspective

Pure Research:
- Focuses on developing and testing theories or hypotheses.
- Often involves abstract or specialized concepts without immediate practical application.
- Includes developing methodologies, tools, or instruments (e.g., stress measurement tools, sampling techniques).
- Adds to the body of knowledge on research methods.

Applied Research:
- Uses research techniques and methodologies to address practical problems.
- Collects data to inform policy, improve administration, or enhance understanding of a phenomenon.

Types of Research: Three Perspectives

Objectives Perspective

Descriptive Research:
- Systematically describes a situation, phenomenon, problem, or community.
- Examples: Types of services provided, organizational structures, living conditions, or attitudes toward issues.

Correlational Research:
- Examines relationships or associations between variables.
- Examples: Relationship between stress and heart disease, fertility and mortality, or technology and unemployment.

Explanatory Research:
- Explores reasons and mechanisms behind relationships.
- Examples: Why stress causes heart attacks, or how the home environment impacts academic achievement.

Exploratory Research:
- Investigates areas with little existing knowledge or assesses the feasibility of further study.
- Often conducted as pilot studies to refine tools or methodologies.

Types of Research: Three Perspectives

Mode of Enquiry Perspective

Structured Approach:
- Predetermined objectives, design, sample, and data collection process.
- Used for quantifying phenomena or measuring variables.

Unstructured Approach:
- Allows flexibility in objectives and methods.
- Used to explore the nature or diversity of a phenomenon.

Qualitative Research:
- Describes situations, phenomena, or problems without quantifying them.
- Data often gathered using nominal or ordinal scales.
- Examples: Descriptions of living conditions, historical events, or community attitudes.

Quantitative Research:
- Quantifies variation in a phenomenon or situation.
- Focuses on measuring and analyzing numerical data.
- Examples: Number of people with a particular problem or specific attitudes.

Significance of Business Research

1.   Informed Decision-Making:

Business research provides data and evidence to support strategic decisions. For example, market research helps identify customer needs and preferences, enabling companies to develop targeted products or services.

2.   Identifying Opportunities and Challenges:

Through research, businesses can uncover new market opportunities, monitor industry trends, and recognize potential threats. This proactive approach allows organizations to adapt and innovate effectively.

3.   Optimizing Resources:

Research helps businesses allocate resources efficiently by identifying areas with the highest potential for growth or improvement. For instance, financial research ensures budgets are invested in profitable ventures.

4.   Understanding Consumer Behavior:

Research offers insights into customer preferences, purchasing patterns, and satisfaction levels. This understanding enables businesses to enhance customer experience and loyalty.

Significance of Business Research

5.   Improving Business Processes:

Operational research identifies inefficiencies in workflows and processes, suggesting solutions to enhance productivity and reduce costs.

6.   Mitigating Risks:

Business research evaluates risks associated with investments, market entry, or product launches, enabling companies to implement risk management strategies.

7.   Gaining Competitive Advantage:

Companies can use research to benchmark against competitors, study their strategies, and position themselves more effectively in the market.

8.   Strategic Planning:

Long-term business planning relies heavily on research to set realistic goals and predict future trends in markets, technology, and customer behavior.

9.   Evaluating Performance:

Post-implementation research assesses the success of business strategies and initiatives, ensuring continuous improvement.

10.   Enhancing Innovation:

By exploring new ideas and technologies, research fosters innovation, helping businesses stay relevant in rapidly changing industries.
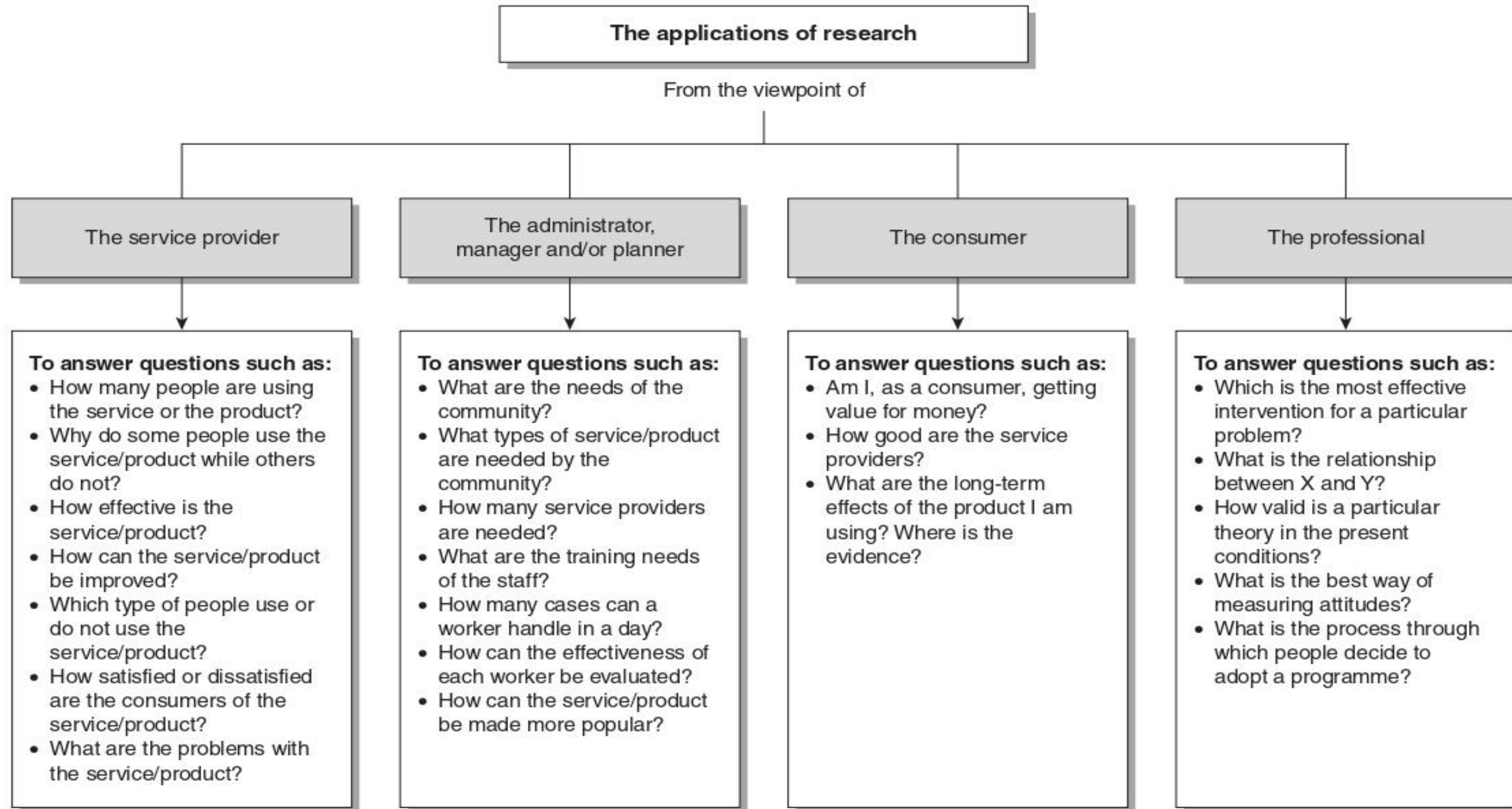
The Applications of Research

FIGURE 1.1 *The applications of research*
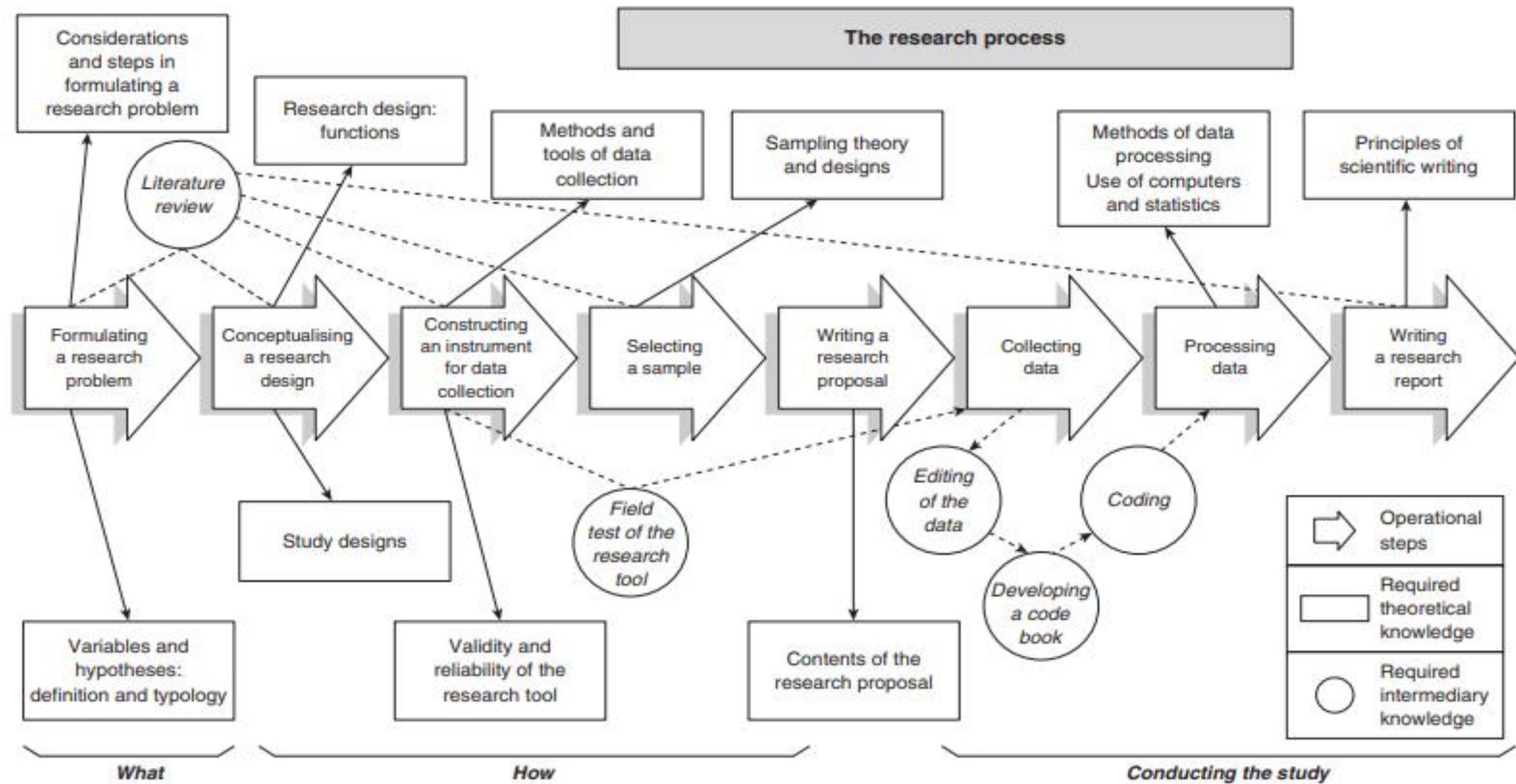
The Research Process: An Eight-Step Model

FIGURE 2.2 *The research process*

The Research Process: An Eight-Step Model

Phase I: Deciding What to Research

1. Formulating a Research Problem

- Define the research focus.
- Consider objectives, resources, time, and expertise.
- Identify gaps in knowledge.

Phase II: Planning a Research Study

2. Conceptualizing a Research Design

- Choose appropriate research methods.
- Plan the study design, sampling, and analytical framework.
- Ensure the validity and practicality of the design.

3. Constructing an Instrument for Data Collection

- Develop or select research tools (e.g., questionnaires, interview guides).
- Field test the instrument.
- Consider coding for data analysis.

4. Selecting a Sample

- Choose a sampling method to represent the population.
- Aim for accuracy, avoid bias, and maximize precision.

5. Writing a Research Proposal

- Compile study objectives, hypotheses, design, instruments, and sample details.
- Outline data processing, report structure, and potential limitations.

Phase III: Conducting a Research Study

6. Collecting Data

- Implement data collection methods (e.g., interviews, surveys, observations).

7. Processing and Displaying Data

- Analyze data manually or via computer (descriptive, quantitative, or qualitative analysis).

8. Writing a Research Report

- Summarize the research and findings.
- Structure the report clearly with academic rigor.

TABLE 2.1 *Differences between qualitative and quantitative research*

Difference with respect to:	Quantitative research	Qualitative research
Underpinning philosophy	Rationalism: 'That human beings achieve knowledge because of their capacity to reason' (Bernard 1994: 2)	Empiricism: 'The only knowledge that human beings acquire is from sensory experiences' (Bernard 1994: 2)
Approach to enquiry	Structured/rigid/predetermined methodology	Unstructured/flexible/open methodology
Main purpose of investigation	To quantify extent of variation in a phenomenon, situation, issue, etc.	To describe variation in a phenomenon, situation, issue, etc.
Measurement of variables	Emphasis on some form of either measurement or classification of variables	Emphasis on description of variables
Sample size	Emphasis on greater sample size	Fewer cases
Focus of enquiry	Narrows focus in terms of extent of enquiry, but assembles required information from a greater number of respondents	Covers multiple issues but assembles required information from fewer respondents
Dominant research value	Reliability and objectivity (value-free)	Authenticity but does not claim to be value-free
Dominant research topic	Explains prevalence, incidence, extent, nature of issues, opinions and attitude; discovers regularities and formulates theories	Explores experiences, meanings, perceptions and feelings
Analysis of data	Subjects variables to frequency distributions, cross-tabulations or other statistical procedures	Subjects responses, narratives or observational data to identification of themes and describes these
Communication of findings	Organisation more analytical in nature, drawing inferences and conclusions, and testing magnitude and strength of a relationship	Organisation more descriptive and narrative in nature

The Art and Science of Literature Reviews in Research

by Md. Kazi Hafizur Rahman

Defining the Literature Review

Comprehensive Summary

A literature review systematically examines existing research, theories, and information on a specific topic.

Analysis

It involves critical analysis of scholarly sources to understand the current state of knowledge in a field.

Gap Identification

Literature reviews help identify gaps in existing research, paving the way for new studies.
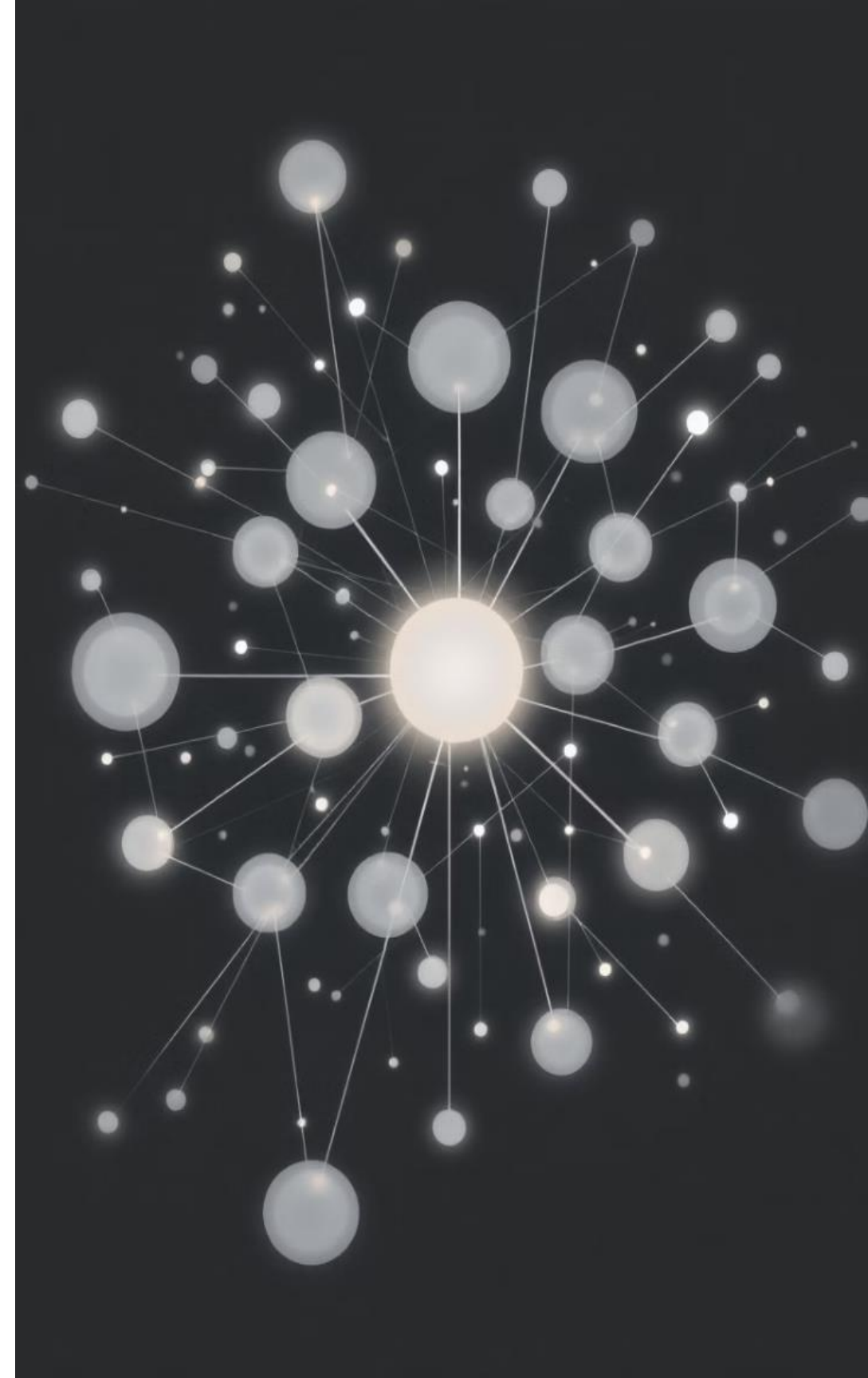
Foundation Building

They establish a foundation for new research by linking it to previous work and relevant theories.

Key Roles and Functions of Literature Reviews

1 — Theoretical Foundation and Background

2 — Linking New Research with Existing Knowledge

3 — Integration of Research Findings with Existing Literature

4 — Integration of Findings

Key Roles and Functions of Literature Reviews

1 Theoretical Foundation and Background

One of the primary functions of a literature review is to lay down a theoretical foundation for the study. By surveying existing studies and theories related to a topic, a researcher can identify critical concepts, theories, and frameworks that shape the current understanding of the subject. This background helps establish a solid foundation for the study and can also highlight any gaps in knowledge that the new research could aim to address. Through this theoretical grounding, the literature review provides context and helps delineate the boundaries of the study, ensuring that it is rooted in existing knowledge while also extending beyond it.

2 Linking New Research with Existing Knowledge

The literature review connects the proposed research with prior studies, showing how it fits into the broader body of knowledge. This linkage is crucial as it demonstrates that the researcher is not working in isolation but building upon the work of others. By acknowledging the contributions of prior research, a literature review creates a framework for understanding how the new study will add value to the existing knowledge base. It highlights areas of agreement or contradiction, where the current study can offer a fresh perspective or reinforce established theories.

Key Roles and Functions of Literature Reviews

3 ── Integration of Research Findings with Existing Literature

Throughout the research process, especially during data analysis and interpretation, the literature review serves as a benchmark. Researchers compared their findings to those of previous studies, determining whether their results support, contradict, or expand upon existing knowledge. This comparison is crucial, as it allows the researcher to make informed conclusions and situates the study's findings within the wider academic dialogue. As such, the literature review plays a key role in the final write-up of research reports, where findings are synthesized with the work of others to draw meaningful and academically robust conclusions.

4 ── Increasing Academic Credibility and Rigor

A thorough and well-integrated literature review enhances the credibility and rigor of the research study. Particularly in higher academic contexts, demonstrating a comprehensive understanding of the field is essential for gaining the confidence of peers, reviewers, and readers. A study that skillfully incorporates and responds to the literature is more likely to be considered credible and academically rigorous, as it reflects an in-depth engagement with the field.

Benefits of Conducting a Literature Review

Bringing Clarity and
Focus to the Research Problem

Improving
Research Methodology

Broadening
the Knowledge Base

Contextualizing
Findings

Key Roles and Functions of Literature Reviews

Bringing Clarity and Focus to the Research Problem

Before formulating a precise research question, researchers often have a broad idea of their topic of interest. A literature review helps narrow this focus by exposing the researcher to the nuances of the field, including existing research questions, methodologies, and theoretical debates. By understanding what has already been explored, the researcher can identify specific gaps or unresolved issues, allowing for a more refined and clear research problem.

Improving Research Methodology

A well-executed literature review exposes the researcher to various methodological approaches used in prior studies. Understanding these approaches can guide the researcher in selecting appropriate methods, tools, and techniques for their study. Additionally, by learning from the strengths and weaknesses of previous research methodologies, the researcher can avoid potential pitfalls and make more informed methodological choices.

Key Roles and Functions of Literature Reviews

Broadening the Knowledge Base

Engaging deeply with the literature enhances the researcher's knowledge and understanding of the field. This expanded knowledge base is valuable not only for the current study but also for the researcher's overall academic development. A broad understanding of the topic can also facilitate connections between the researcher's study and related fields, potentially enriching the study's scope and impact.

Contextualizing Findings

Once the research is completed, the literature review helps the researcher contextualize and interpret their findings. By comparing their results with those of similar studies, the researcher can determine the significance and implications of their findings. This contextualization helps ensure that the researcher's conclusions are grounded in the existing body of knowledge, contributing to a more cohesive understanding of the topic within the field.

Steps in Conducting a Literature Review

1

Searching for Existing Literature in the Area of Study

Locate relevant studies using databases and reputable sources.

2

Reviewing the Selected Literature

Critically analyze gathered sources, organizing information by themes.

3

Developing a Theoretical Framework

Build a foundation based on established theories to guide the study.

4

Developing a Conceptual Framework

Create a structured outline of key concepts, mapping relationships.

Steps in Conducting a Literature Review

1

Searching for Existing Literature in the Area of Study

·Searching for existing literature involves locating relevant research materials using academic databases like PubMed and Google Scholar, library catalogues, and reference lists from key articles. Researchers can use books for in-depth information, academic journals for the latest findings, and reliable internet sources from trusted educational or government websites.

2

Reviewing the Selected Literature

After gathering relevant studies, a critical review of these materials is essential to understand their methodologies, findings, and contributions to the field. This process involves thoroughly reading each piece, taking notes on key points, and organizing information by themes, methods, or theoretical perspectives. It is important to evaluate the credibility, relevance, and limitations of each source to identify gaps in current knowledge and determine how the new research can add value.

Steps in Conducting a Literature Review

3

Developing a Theoretical Framework

·The theoretical framework is built upon the theories and concepts identified during the literature review. By establishing a theoretical base, a foundation for understanding and interpreting the research problem is set. This framework provides a structure for the study, guiding the design and interpretation of findings in light of established theories.

4

Reviewing the Selected Literature

The conceptual framework synthesizes ideas drawn from the reviewed literature, illustrating relationships between key concepts and how researchers relate to the study. This framework can visually or textually map out the specific constructs of focus, helping to clarify how these concepts relate to each other and the research question. The conceptual framework not only guides methodology but also ensures that the research remains focused and aligned with existing knowledge and theories.

Steps in Conducting a Literature Review

3

Developing a Theoretical Framework

The theoretical framework is built upon the theories and concepts identified during the literature review. By establishing a theoretical base, a foundation for understanding and interpreting the research problem is set. This framework provides a structure for the study, guiding the design and interpretation of findings in light of established theories.

4

Developing a Conceptual Framework

The conceptual framework synthesizes ideas drawn from the reviewed literature, illustrating relationships between key concepts and how researchers relate to the study. This framework can visually or textually map out the specific constructs of focus, helping to clarify how these concepts relate to each other and the research question. The conceptual framework not only guides methodology but also ensures that the research remains focused and aligned with existing knowledge and theories.

Now It is Time to Conduct Review of Literature

Author	Purpose	Country Context	Sample Size	Theory Used	Constructs/ Variable				Findings	Future Research Guidelines
					Independent	Dependent	Mediator	Moderator		

References:

Now Its time to Conduct a literature Review:

Interest and Magnitude

Choose a topic that genuinely interests you and is manageable within available resources and time. This ensures sustained motivation throughout the research process.

Measurement and Expertise

Ensure key concepts are measurable, especially for quantitative studies. Select a topic that aligns with your skill level and knowledge to maintain research quality.

Relevance and Data Availability

Pick a relevant topic that adds practical value to the field. Confirm access to necessary data sources to avoid limitations in your study.

Research Problem Formulation

by Md. Kazi Hafizur Rahman

Understanding the Research Problem

Definition

A question or assumption requiring investigation

Complexity

Not all questions suitable for research

Expertise Required

Deep understanding of subject and methodology

Careful Consideration

Demands thorough examination and reflection

A research problem is the cornerstone of any study, serving as the guiding light that illuminates the path of inquiry. It's essential to recognize that formulating an effective research problem is a skill that requires practice and refinement.

The Importance of a Well-Formulated Research Problem

1 Foundation of Study

Acts as the cornerstone for entire research

2 Guides Methodology

Influences study design and data collection

3 Shapes Analysis

Directs data interpretation and conclusions

4 Ensures Relevance

Keeps research focused and meaningful
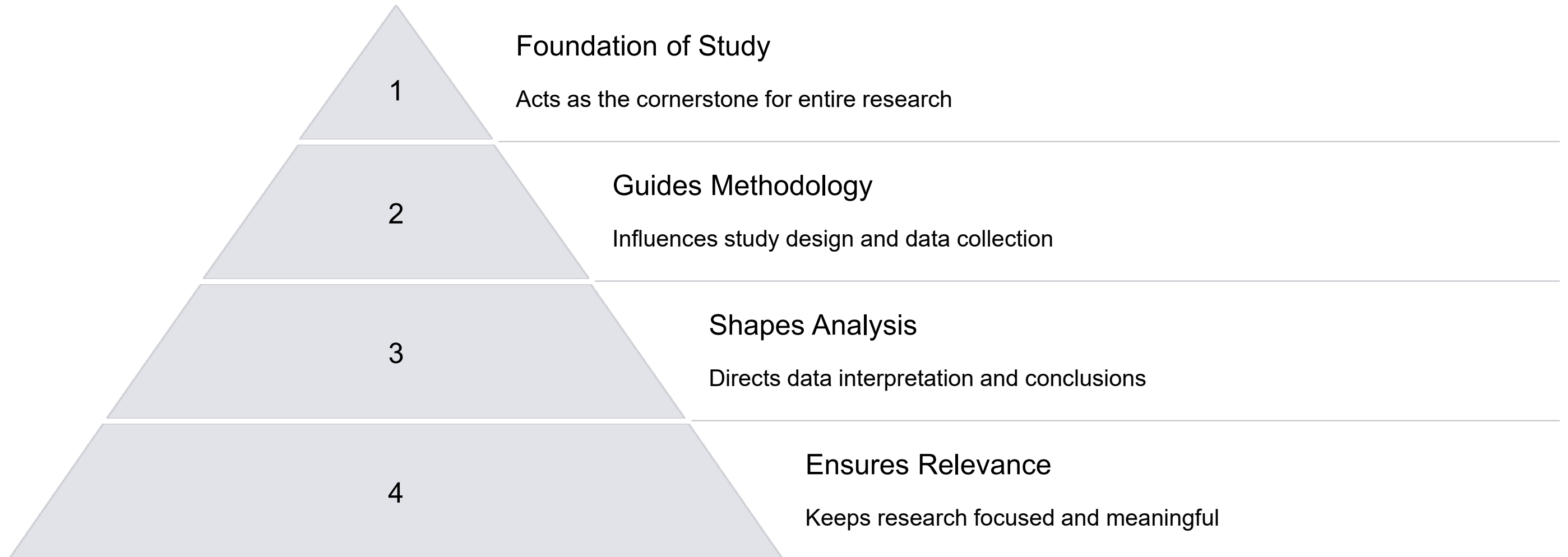
A well-defined research problem is like a compass, guiding researchers through the complex landscape of their study. It not only shapes the entire research process but also ensures that the findings are relevant and impactful. For instance, in a study on depression, the formulation of the problem determines whether the focus will be on service availability, usage patterns, or correlations with patient attributes.
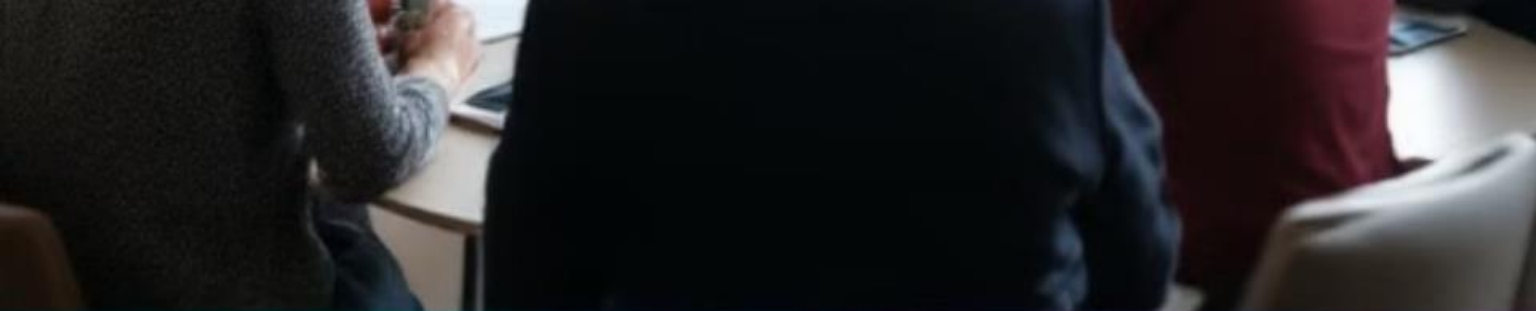
Sources of Research Problems

People

Understanding needs and behaviors of specific groups

Problems

Addressing societal issues or challenges

Programs

Evaluating existing initiatives or services

Phenomena

Exploring specific events or trends in a field

Identifying potential research problems can be a challenging task, but numerous sources can inspire meaningful inquiries. By examining these diverse sources, researchers can uncover gaps in knowledge, conflicting theories, or emerging trends that warrant further investigation. The key is to remain curious and observant, always looking for opportunities to contribute to the existing body of knowledge.

Key Considerations in Selecting a Research Problem

When choosing a research topic, several key considerations can help ensure the study is manageable and engaging:

1. **Interest:** Select a topic that genuinely interests you. Research can be time-consuming and challenging, so a lack of passion may hinder motivation. For instance, if someone is interested in marketing strategies, they might explore how social media influences consumer behaviour.

2. **Magnitude:** Ensure the topic is manageable within available time and resources. A broad topic can be overwhelming. Instead of studying "global marketing strategies," focus on "the impact of Instagram marketing on small businesses in the local area."

3. **Measurement of Concepts:** Be clear about how to measure key concepts. If studying "customer satisfaction," define what indicators (like survey ratings or repeat purchases) will be used to measure it.

Key Considerations in Selecting a Research Problem

4. **Level of Expertise:** Assess personal expertise related to the topic. Choose a subject where existing knowledge can be leveraged, but also allow for learning. For example, if someone has a background in finance, they might investigate investment strategies for startups.

5. **Relevance:** Ensure the topic is relevant to the field and adds value. A study on "effective employee training programs" can provide insights that benefit organizations in enhancing workforce productivity.

6. **Availability of Data:** Confirm that necessary data can be accessed easily. For example, if researching "customer loyalty programs," check if relevant data from company records or industry reports is available.

7. **Ethical Issues:** Consider any ethical implications of the research. Ensure that the study does not harm participants or exploit sensitive information. For instance, a study investigating employee satisfaction should ensure confidentiality and avoid invasive questions.

Steps in Formulating a Research Problem

1 — Identify Broad Field

2 — Dissect into Subareas

3 — Select Areas of Interest

4 — Raise Research Questions

5 — Formulate Objectives

6 — Assess and Refine

Step 1: Identify a Broad Field of Interest

Begin by selecting a broad area that resonates with personal or professional interests. For example, a marketing student might choose to explore consumer behaviour, while a public health student might focus on HIV/AIDS.

Step 2: Dissect the Broad Area into Subareas

Break down the chosen field into specific subareas. For instance, within consumer behavior, subareas could include:

- Influences of social media on purchasing decisions
- Demographic factors affecting brand loyalty
- Psychological triggers in advertising

Step 3: Select Areas of Most Interest

From the list of subareas, identify those that spark the greatest interest. Use a process of elimination to narrow down options until only a few manageable topics remain. For example, if the focus is on social media influences, one might choose to study the impact of Instagram on brand loyalty.

.

Step 4: Raise Research Questions

Formulate questions regarding the selected subarea. For instance, one might ask: "How does Instagram affect consumer purchasing decisions among young adults?" If too many questions arise, prioritize the most relevant ones.

Step 5: Formulate Objectives

Transform research questions into specific objectives. For example:

•Main Objective: To investigate the impact of Instagram marketing on consumer purchasing decisions.

Subobjectives:

- To assess the effectiveness of influencer endorsements on Instagram.
- To examine the relationship between engagement metrics and purchasing behavior.
-

Step 6: Assess Objectives

Evaluate the feasibility of achieving these objectives considering available time, resources, and expertise. Ensure that the objectives are realistic and achievable within the study's scope.

Step 7: Double-Check

Reassess the overall interest and resource availability for the study. Ask questions like:
- Am I enthusiastic about this topic?
- Do I have the necessary resources to conduct this research? If the answer to either question is no, revisit previous steps.

.

Common Pitfalls in Research Problem Formulation

Overly Broad Scope

Attempting to tackle too large a problem can lead to unfocused research and inconclusive results. Always aim to narrow your focus to a manageable scope.

Lack of Originality

Failing to conduct a thorough literature review may result in duplicating existing research. Ensure your problem adds new knowledge to the field.

Ambiguous Concepts

Poorly defined variables or concepts can lead to confusion and invalid results. Always clearly operationalize your key terms and measurements.

Ignoring Feasibility

Not considering practical constraints like time, resources, or ethical implications can derail your research. Always assess the viability of your proposed study.

Awareness of these common pitfalls can help researchers avoid major setbacks in their studies. Regular self-assessment and peer review throughout the formulation process can catch these issues early, allowing for timely adjustments and refinements.

Crafting Effective Research Objectives

1

Main Objective

Define the overarching goal of your study

2

Subobjectives

Identify specific aspects to investigate

3

Clarity and Specificity

Ensure objectives are clear and measurable

4

Alignment

Ensure subobjectives support the main objective

Well-crafted research objectives provide a roadmap for your study. They should be SMART: Specific, Measurable, Achievable, Relevant, and Time-bound. For example, a main objective might be "To explore how Instagram influences consumer buying habits," with subobjectives focusing on visual content impact and user-generated content's role in brand perception.

Understanding Variables in Research: From Concepts to Measurements

by Md. Kazi Hafizur Rahman

Defining Variables: The Building Blocks of Research

What is a Variable?

A variable is a measurable concept that can take on different values. It represents a property that can vary and is capable of measurement, allowing researchers to evaluate phenomena and analyze relationships.

Importance in Research

Variables are essential in research as they provide a means to quantify abstract concepts. They enable researchers to collect data, test hypotheses, and draw meaningful conclusions from their studies.

From Concepts to Variables: Bridging Abstract and Concrete

1
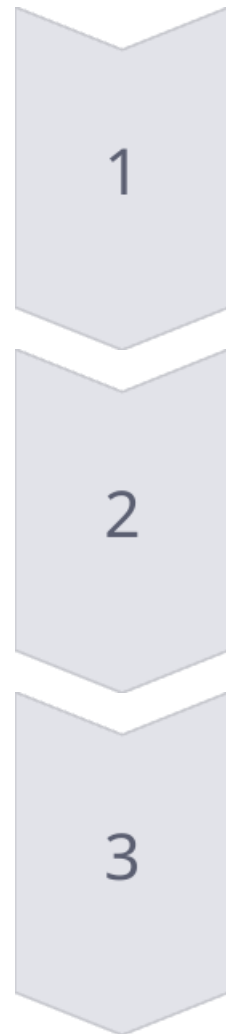
Concept

A general idea or construct representing an intangible quality or phenomenon. Abstract and open to interpretation.

2

Operationalization

The process of defining concepts in measurable terms, creating specific indicators or measures.

3

Variable

A concrete, specific measurement derived from a concept. Clearly defined and measurable.

Aspect	Concept	Variable
Definition	A general idea or construct representing an intangible quality or phenomenon.	A specific, measurable representation of a concept.
Nature	Abstract and subjective.	Concrete and objective.
Interpretation	Varies from person to person; open to interpretation.	Clearly defined and standardized for consistency.
Measurement	Cannot be directly measured.	Can be directly measured using specific methods.
Example	*Customer satisfaction*—a general feeling of satisfaction with a product or service.	*Customer satisfaction score*—a specific rating or score derived from surveys.
Purpose in Research	Provides a broad focus or area of study, helping to frame what will be explored.	Provides a way to collect data, enabling the concept to be quantified and analyzed.
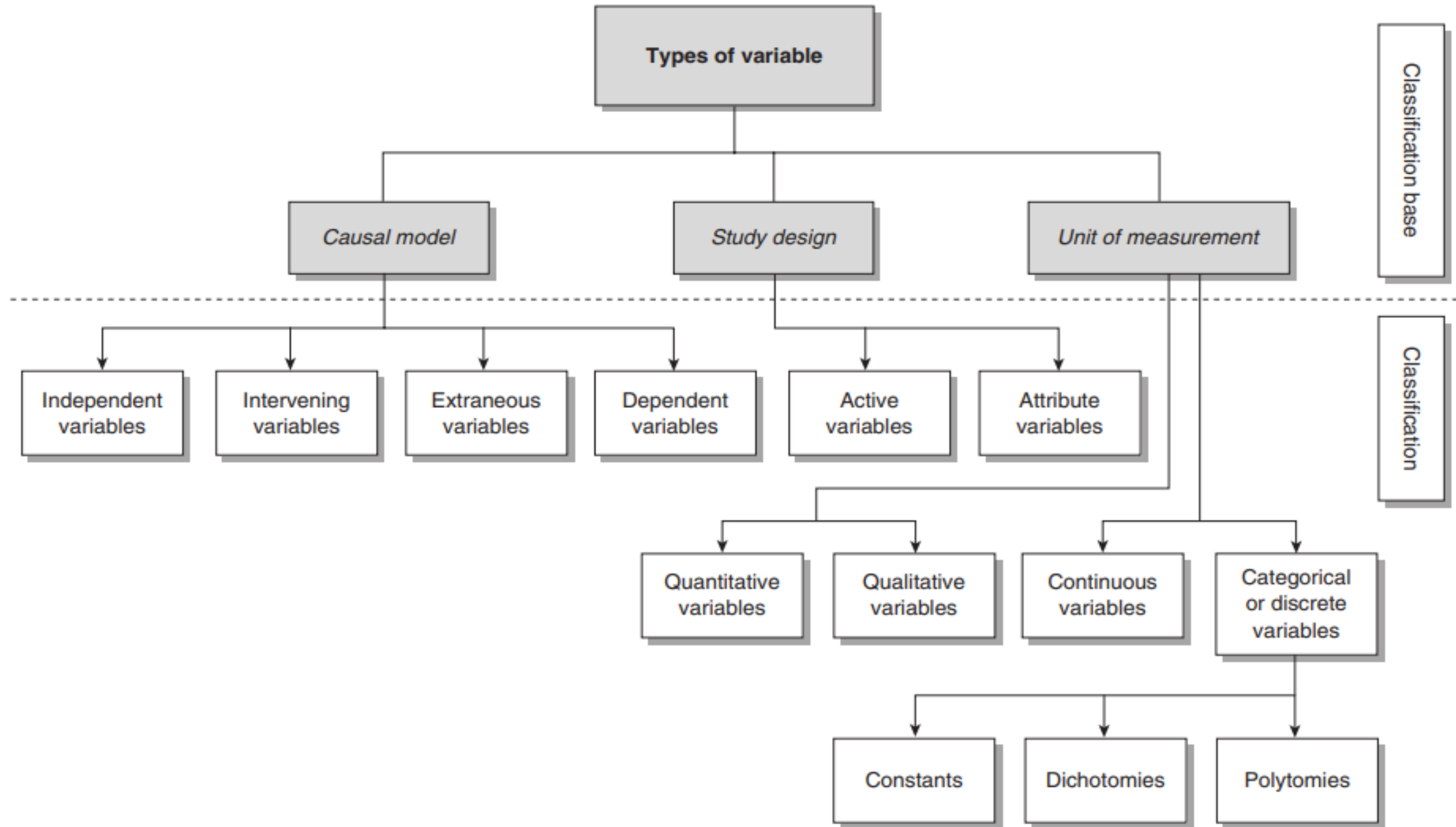
Variables in Causal Relationships

1   Independent Variable

The presumed cause or influence

2   Dependent Variable

The outcome or effect

3   Intervening Variable

The linking mechanism

4   Extraneous Variable

Potential confounding factors

Understanding these relationships is crucial for designing robust studies and interpreting results accurately. Researchers must carefully consider and control for each type of variable to ensure the validity of their findings.

Connecting or linking variables (4)

Cause

Change variables (1)

Effect

Outcome variables (2)

Variables that affect the relationship (3)

Smoking		
(Assumed cause)		
Independent variable		

Cancer		
(Assumed effect)		
Dependent variable		

Affect the relationship

- The age of the person
- The extent of his/her smoking
- The duration of smoking
- The extent of daily exercise, etc.

Extraneous variables

(Mortality)	The extent of the use of contraceptives	Fertility
Independent variable	**Intervening variables**	**Dependent variable**

- Attitudes towards contraceptive use among the population
- Level of education of the population
- Socioeconomic status of the population
- Provision and quality of health services
- Motivation of the individual
- Age of the individual
- Religion, etc.

Extraneous variables

Variables from the Study Design Perspective

Active Variables

These are variables that can be manipulated or controlled by the researcher. For example, in a study testing different teaching methods, the specific techniques used are active variables.

Attribute Variables

These are characteristics of the study population that cannot be manipulated. Examples include age, gender, education level, and income. Researchers must account for these but cannot change them.

Recognizing the distinction between active and attribute variables is crucial for research design and analysis. It informs the approach to data collection and interpretation of results.

Variables from the Study Design Perspective

Study intervention • Different teaching models • Experimental intervention • Programme service, etc. **Active variables** *A researcher can manipulate, control or measure*	*Study population* • Age • Gender • Level of motivation • Attitudes • Religion, etc. **Attribute variables** *A researcher cannot manipulate, control or measure*

Contact

Variables Based on Unit of Measurement

Categorical Variables ——— 1

Measured on nominal or ordinal scales. These include constant variables (single category), dichotomous variables (two categories), and polytomous variables (multiple categories).

2 ——— Continuous Variables

Measured on interval or ratio scales. These can take on any value within a given range, allowing for a greater degree of precision in measurement.

Understanding the measurement scale of variables is crucial for selecting appropriate statistical analyses and interpreting research findings accurately.

TABLE 5.3 *Categorical/continuous and quantitative/qualitative variables*

Categorical			Continuous	Qualitative	Quantitative
Constant	**Dichotomous**	**Polytomous**	**Continuous**	**Qualitative**	**Quantitative**

• water
 	
• tree
 	
• taxi
	• yes/no
	
	• good/bad
	
	• rich/poor
	
	• day/night
	
	• male/
	  female
	
	• hot/cold*
		Attitudes
		• strongly
		  favourable
		• favourable
		• uncertain
		• strongly
		  unfavourable
		Political
		parties
		• Labor
		• Liberal
		• Democrat
		Age*
		• old
		• child
		• young
		Income^
		• high
		• middle
		• low
			Income ($)
			
			Age (years)
			
			Weight (kg)
				Gender
				• female
				• male
				Educational
				level
				• high
				• average
				• low
				Age*
				• old
				• young
				• child
				Income
				• high
				• middle
				• low
				Temperature+
				• hot
				• cold
					Educational
					level
					____ no. of
					years
					completed
					Age:*
					
					____
					years/months
					
					Income^
					____ $ per
					year
					
					Temperature+
					
					____ °C or °F

* Can be classified in qualitative categories, e.g. old, young, child; or quantitatively on a continuous scale, e.g. in years, months and days.

Practical Examples of Variables in Research

Biology

Independent: Light exposure. Dependent: Plant growth rate.

Psychology

Independent: Therapy type. Dependent: Anxiety levels.

Economics

Independent: Interest rates. Dependent: Consumer spending.

These examples illustrate how variables are applied across different fields of study. Each discipline has its unique set of variables, but the principles of variable identification and measurement remain consistent.

Challenges in Variable Measurement

Validity
Ensuring that the variable accurately represents the concept it's intended to measure.

Reliability
Consistency in measurement across different instances or observers.

Confounding Variables
Identifying and controlling for variables that may interfere with the study's conclusions.

Operationalization
Translating abstract concepts into measurable variables without losing their essence.

Addressing these challenges is crucial for producing high-quality research. Researchers must employ rigorous methodologies and critical thinking to overcome these obstacles.

Conclusion: The Power of Variables in Research

1	**Foundation**
	Variables form the bedrock of scientific inquiry.

2	**Insight**
	They provide measurable insights into complex phenomena.

3	**Analysis**
	Enable sophisticated statistical analyses and interpretations.

4	**Progress**
	Drive scientific progress and knowledge advancement.

As we conclude, remember that mastering the art of variable identification, measurement, and analysis is key to conducting impactful research. Continue to explore and refine your understanding of variables to enhance your research capabilities.

Understanding Hypotheses in Research: From Theory to Practice

by Md. Kazi Hafizur Rahman

The Essence of a Hypothesis

Tentative Assumption

A hypothesis is an educated guess or provisional explanation about a phenomenon or relationship.

Unverified Proposition

Its validity remains uncertain until tested through rigorous research methods.

Relationship Specifier

Often describes a potential connection between multiple variables in a study.

Research Guide

Serves as a compass for the investigation, directing data collection and analysis efforts.

Functions of a Hypothesis in Research

Focus

Narrows research scope to specific aspects requiring investigation.

Data Collection

Guides researchers on relevant information to gather.

Objectivity

Enhances study impartiality by providing clear direction.

Theory Development

Contributes to theoretical formulation by testing assumptions.

Characteristics of a Strong Hypothesis

1 — Simplicity
Clear, concise, and free of ambiguity

2 — Specificity
Focused on a single idea or relationship

3 — Verifiability
Testable using available methods

4 — Connection to Existing Knowledge
Grounded in and contributing to current research

5 — Operationalisability
Stated in measurable terms
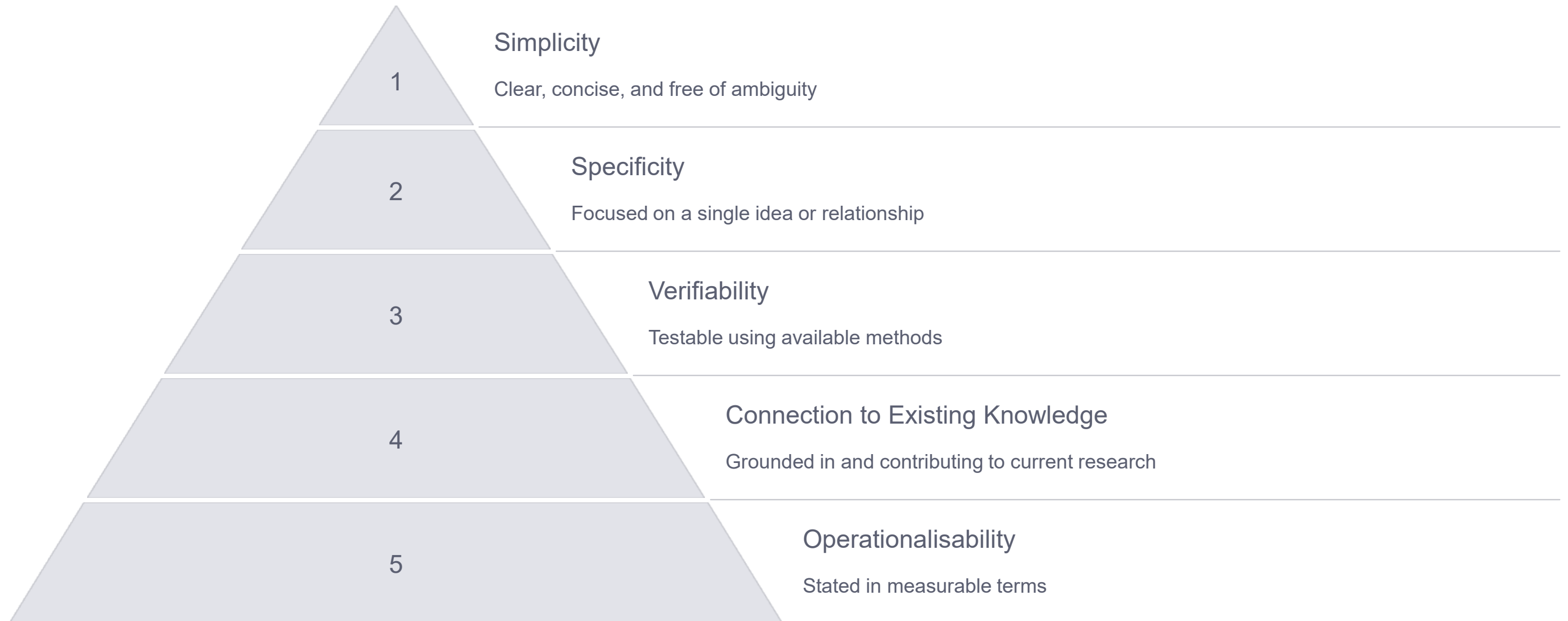
A well-crafted hypothesis embodies these characteristics, ensuring it can effectively guide research and yield meaningful results. For instance, "Companies that invest in employee training programs see a 15% increase in productivity within the first year" is specific, verifiable, and operationalisable.

Types of Hypotheses

Research Hypotheses

These are the primary hypotheses guiding the investigation. They state what the researcher expects to find based on their theoretical framework or background knowledge. For example, "Implementing a flexible work schedule will increase employee productivity." Research hypotheses propose specific relationships or effects to be tested.

Alternate Hypotheses

These are formulated as alternatives to the research hypothesis. They usually suggest that there is no effect or no relationship, providing a contrasting statement. Using the same example, an alternate hypothesis could be, "Implementing a flexible work schedule will not significantly affect employee productivity." Alternate hypotheses serve as counterpoints to be disproven.

Errors in Hypothesis Testing

Types of Errors in Hypothesis Testing

In hypothesis testing, two main types of errors can occur:

1. Type I Error (False Positive)
o Occurs when the null hypothesis is rejected, even though it is actually true.

o In other words, a researcher incorrectly concludes that there is an effect or relationship when, in fact, there is none.

2. Type II Error (False Negative)
o Occurs when the null hypothesis is accepted, even though it is actually false.
o This error means that the researcher fails to detect a true effect or relationship.

When all null hypothesis is actually:

	Correct decision	Type I error
Accept	Correct decision	Type I error
Reject	Type II error	Correct decision

When your decision is to:

FIGURE 6.4 *Type I and Type II errors in testing a hypothesis*

Reason for Errors in Hypothesis Testing

1

Faulty Study Design

Poor planning can lead to unreliable results.

2

Sampling Issues

Non-representative samples skew outcomes.

3

Data Collection Errors

Inaccurate methods compromise data integrity.

4

Analysis Mistakes

Incorrect statistical procedures yield false conclusions.

These errors can lead to two main types of mistakes: Type I (false positive) and Type II (false negative) errors. Type I occurs when rejecting a true null hypothesis, while Type II happens when failing to reject a false null hypothesis.

Hypotheses in Qualitative Research

Exploratory Nature

Qualitative research often explores broad phenomena rather than testing predefined hypotheses. This approach allows for more open-ended discovery and understanding of complex social realities.

Lack of Specificity

Unlike quantitative research, qualitative studies typically avoid the high degree of specificity required for traditional hypothesis testing. This flexibility allows researchers to adapt their focus as new insights emerge.

Alternative Approaches

While formal hypotheses are less common, qualitative researchers may use research questions or propositions to guide their studies. These serve a similar purpose in focusing the research without constraining the exploration.

Disciplinary Variations in Hypothesis Use

1 — Natural Sciences

Heavily rely on hypothesis formulation and testing, often using controlled experiments.

2 — Social Sciences

Use hypotheses in both quantitative and qualitative research, with varying emphasis depending on the specific discipline and research question.

3 — Humanities

Less likely to use formal hypotheses, often focusing on interpretation and critical analysis instead.

4 — Interdisciplinary Research

May combine hypothesis-driven approaches with more exploratory methods, depending on the nature of the study.

Key Takeaways and Future Directions

1

Hypothesis Importance

Hypotheses play a crucial role in guiding research across many disciplines, providing focus and direction.

2

Types of Hypotheses

Understanding the differences between research and alternate hypotheses is key to effective study design.

3

Error Awareness

Recognizing potential errors in hypothesis testing helps researchers improve their methodologies and interpretations.

4

Qualitative Considerations

While less common in qualitative research, hypotheses can still play a role in guiding exploratory studies.

As research methodologies continue to evolve, the role of hypotheses may change. Future directions include exploring new ways to formulate and test hypotheses in complex, interdisciplinary studies and developing more sophisticated tools for hypothesis generation in data-rich environments.

Unlocking the Power of Sampling in Research

Welcome to our exploration of sampling methods in research. This presentation will guide you through the fundamentals of sampling, its importance, and the various approaches available. We'll cover probability and non-probability sampling techniques, explore their strengths and weaknesses, and equip you with the knowledge to choose the right method for your research goals.

(H) by Md. Kazi Hafizur Rahman

What is Sampling?

The Core Idea

Sampling is the process of selecting a small group, called a sample, from a larger group, called a population. This is done to gather information about the population as a whole, without having to study every single member.

Why Sample?

Sampling is crucial for efficiency and cost-effectiveness. It allows researchers to collect data from a manageable group, generating insights that can be applied to the larger population.

The Essence of Random Sampling

1 **Equal Chance**

Every individual in the population has an equal probability of being selected for the sample.

2 **Independent Selection**

The selection of one individual does not influence the selection of others. This ensures unbiased representation.

3 **Benefits**

Random sampling allows you to generalize findings to the population and use statistical tests to confirm correlations.

Probability Sampling: Key Techniques

### Simple Random Sampling Sampling (SRS)

Each individual has an equal and independent chance of being selected. Examples include lottery methods or random number generators.

Stratified Random Sampling

Divides the population into subgroups based on relevant characteristics (e.g., age, gender) and then applies SRS within each subgroup.

Cluster Sampling

Groups elements into clusters (e.g., geographic areas) and then samples within each cluster. Multi-stage cluster sampling involves further stages for greater efficiency.
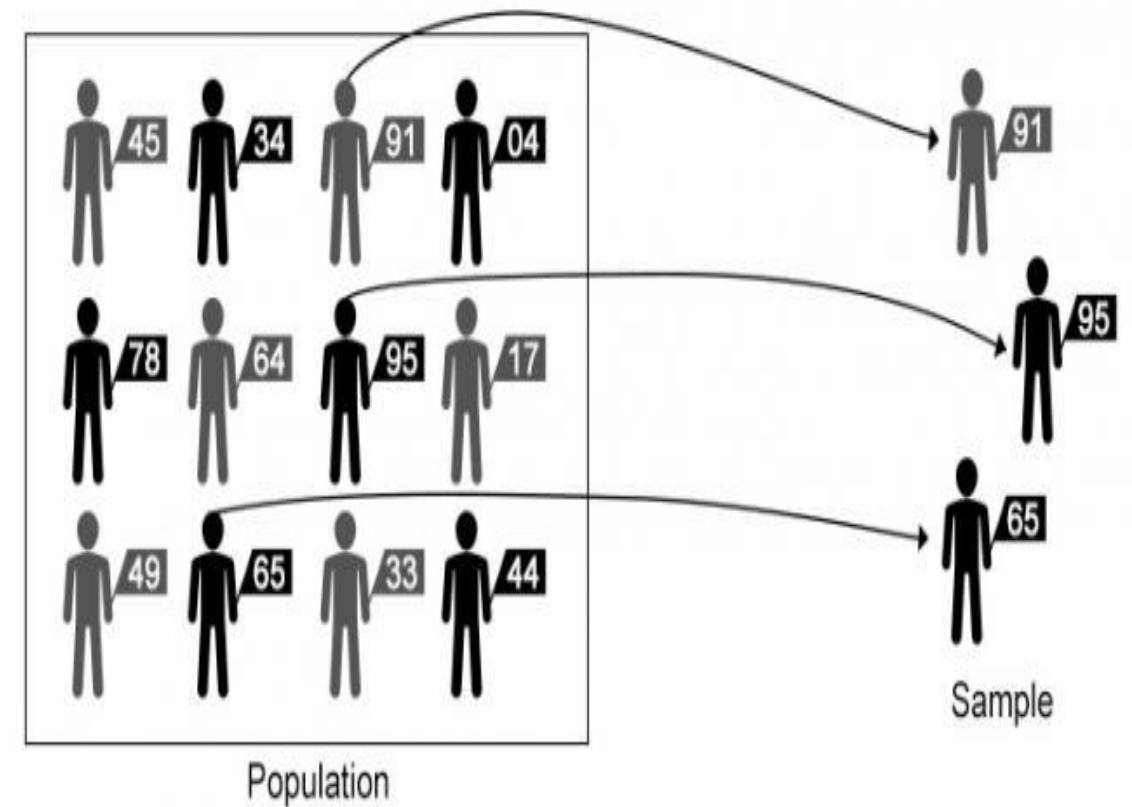
Probability Sampling

samptine

samptinc

Time,

accuratcy

When Probability Sampling Isn't Feasible

?

Unknown Population

When the size or composition of the population is unknown, probability-based selection becomes impossible.

Limited Resources

Non-probability sampling can be employed when time or budget constraints limit the use of probability methods.

Specific Demographics

When targeting particular customer segments is essential, non-probability techniques like stratified or snowball sampling may be appropriate.

Non-Probability Sampling: Exploring Options

Quota Sampling — **1**

Selects participants based on convenience and predetermined quotas for specific characteristics (e.g., gender, race). Cost-effective but prone to bias.

2 — **Accidental Sampling**

Also known as convenience sampling, it involves selecting participants who are readily accessible. Efficient but potentially unrepresentative.

Judgemental/Purposive Sampling — **3**

Targets participants who are likely to have valuable information for the study. Useful in qualitative research, but can introduce bias.

4 — **Expert Sampling**

Focuses on individuals with expertise in the study area. Valuable in both qualitative and quantitative research.

Snowball Sampling — **5**

Starts with a few participants who then refer others, creating a snowball effect. Ideal for network-based studies but can introduce bias.

Choosing the Right Sampling Method

1

Research Objective

If the goal is to generalize findings, probability sampling methods are preferred. Otherwise, non-probability methods may be suitable.

2

Resources

Consider the time, budget, and available resources. Non-probability sampling might be more feasible with limited resources.

3

Demographics

If specific customer segments are crucial for the research, stratified or snowball sampling may be beneficial.

The Power of Informed Sampling

1	**Sound Research**
2	**Informed Choice**
3	**Method Selection**
4	**Data Analysis**
5	**Results**
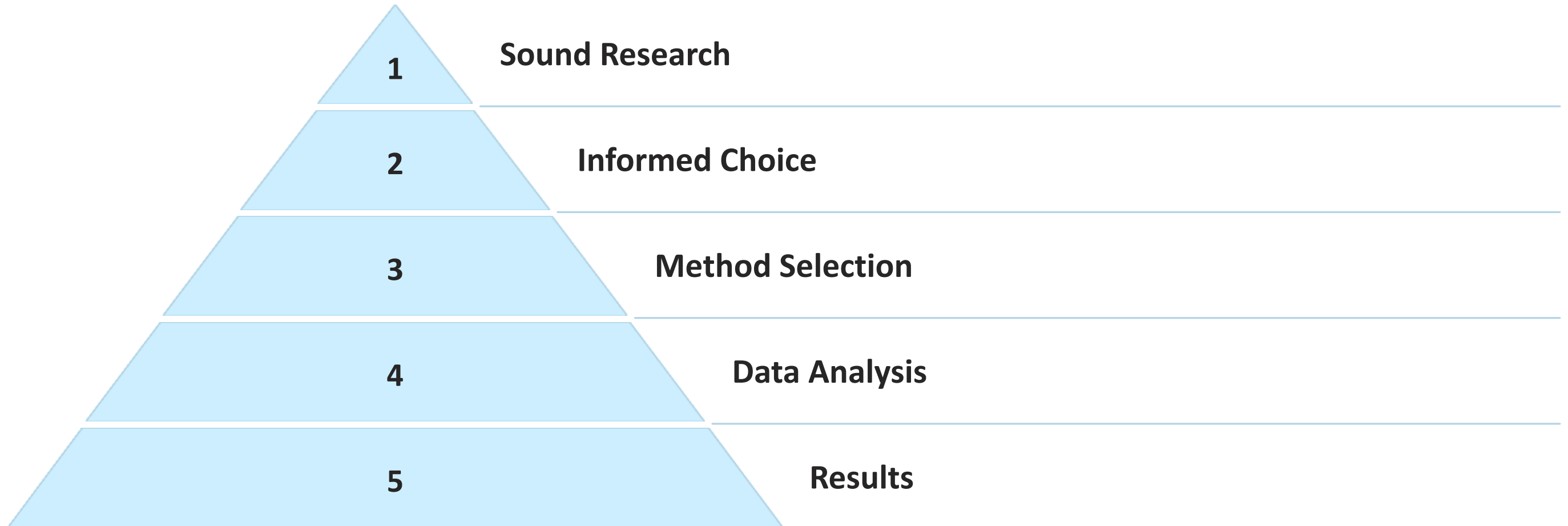
Choosing the right sampling method is crucial for conducting sound research and generating reliable results. By understanding the strengths and limitations of each approach, researchers can make informed decisions that align with their research goals and ensure the validity of their findings.

Unlocking the Secrets of Study Design: A Guide to Research Methodology

by Md. Kazi Hafizur Rahman

Understanding Study Design: The Blueprint for Research

What is Study Design?

Study design refers to the framework or blueprint that guides researchers in systematically collecting, analyzing, and interpreting data to answer specific research questions. It outlines the methods and procedures used to conduct the study, ensuring that the research is valid, reliable, and addresses its objectives effectively.

Importance of Study Design

A well-designed study ensures that the research findings are accurate, reliable, and can be generalized to other populations. A robust study design helps researchers avoid biases, minimize errors, and draw meaningful conclusions from the data.

Quantitative vs. Qualitative Study Designs

Aspect	Quantitative Study Designs	Qualitative Study Designs
Structure	Specific, rigid, and well-structured.	Flexible, emergent, and less structured.
Validity and Reliability	Tested and verified.	Less emphasis on testing; evolving designs.
Logic	Deductive logic; focused on measurement and classification.	Inductive logic; focused on exploration and understanding.
Focus and Purpose	Measures extent or magnitude (e.g., "how many").	Explores variation, diversity, and meanings.
Researcher-Participant Dynamics	Larger "power gap"; structured data collection.	Smaller "power gap"; informal data collection.
Respondent Concordance	Not emphasized; findings shared with participants if needed.	Crucial; respondents agree with interpretations and findings.
Bias	Minimizes researcher bias through structure and control.	Higher risk of bias due to flexibility and lack of control.
Replicability	Findings can be replicated and retested.	Hard to replicate due to evolving designs.
Integration for Research	Not inherently integrative; measures extent or magnitude.	Combines well with quantitative to explain observed patterns.
Recommended Use	Suitable for verifying hypotheses and measuring variation.	Suitable for understanding experiences and exploring phenomena.

Categorizing Study Designs: Number of Contacts

Cross-Sectional Studies

Capture a snapshot of a phenomenon at a single point in time. They are efficient for examining prevalence or current status but cannot measure changes over time.

Before-and-After Studies

Involve data collection before and after an intervention or event to assess changes over time. They are useful for evaluating interventions but require more time and resources.

Longitudinal Studies

Involve multiple data collection points over extended periods to track patterns of change or trends. They provide valuable insights into trends but are the most time-consuming and expensive.

Study Designs Based on Time: Time: Reference Period

Retrospective Studies

Explore past phenomena using existing records or participants' recall. They are suitable for historical analyses but may be susceptible to recall bias.

Prospective Studies

Aim to predict or determine future outcomes through primary data collection after an intervention. They are strong for examining causal relationships but require longer follow-up periods.

Retrospective-Prospective Studies

Combine retrospective data with ongoing data collection to analyze past trends and predict future outcomes. They provide a comprehensive view but require a significant amount of effort.

Investigating Cause and Effect: Experimental Studies

Control

Researchers manipulate the independent variable to observe its impact on the dependent variable.

Randomization

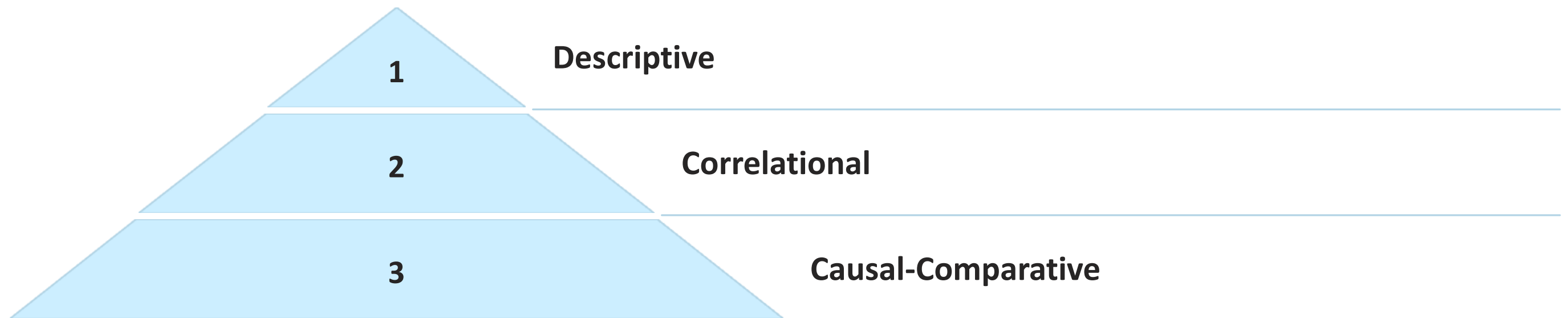Participants are randomly assigned to different groups to ensure comparability and minimize bias.

Controlled Environment

Experiments are conducted in controlled settings to minimize the influence of extraneous factors.

Observing Existing Phenomena: Non-Experimental Experimental Studies

1   **Descriptive**

2   **Correlational**

3   **Causal-Comparative**

Non-experimental studies examine existing phenomena without manipulating variables. They can be descriptive, correlational, or causal-comparative, aiming to understand relationships and patterns retrospectively.

Bridging the Gap: Quasi- or Semi-Experimental Studies

1

Control Group

May lack a true control group, or the control group may not be randomly assigned.

2

Intervention

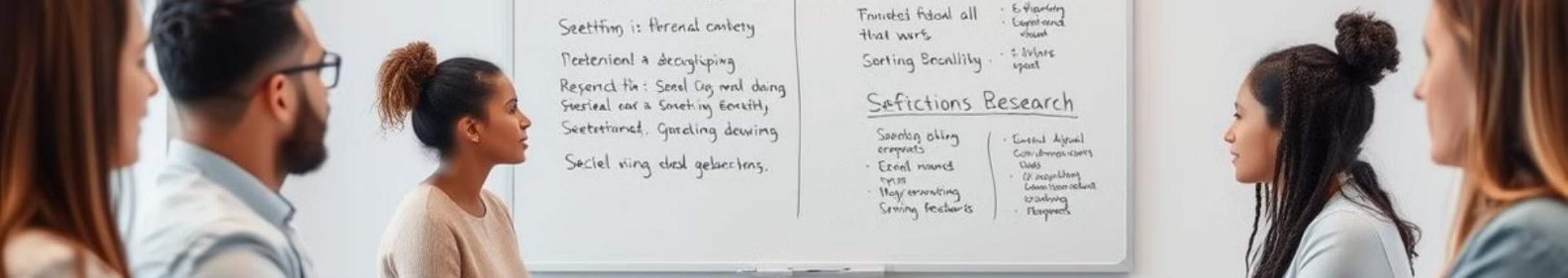Researchers introduce an intervention but with limited control over other variables.

3

Data Analysis

Researchers analyze data to assess the impact of the intervention, considering potential confounding factors.

Choosing the Right Study Design: A Practical Approach

1

Research Question

What is the research question you aim to answer? Is it about identifying relationships, examining cause and effect, or describing a phenomenon?

2

Resources

What resources do you have available? Time, budget, and access to participants will influence the feasibility of different study designs.

3

Ethics

Are there any ethical considerations that limit your options? Ensure that your chosen design respects participants' rights and minimizes harm.

Harnessing the Power of Study Designs

Rigorous Research

1 Selecting an appropriate study design ensures the validity and reliability of your research findings.

Data-Driven Insights

2 Well-designed studies provide a foundation for generating reliable and actionable insights.

Evidence-Based Decisions

3 Research findings based on robust study designs contribute to informed decision-making in various fields.

Qualitative Research Designs Designs

H by Md. Kazi Hafizur Rahman

Case Study Design

Definition

A case study design involves an in-depth, holistic investigation of a specific entity, such as an individual, group, community, or event.

Key Features

Focuses on atypical or representative cases to gain insights into broader contexts. Employs purposive sampling to select cases that provide rich information. Utilizes multiple data collection methods (e.g., interviews, observations, secondary data).

Oral History

Definition

Oral history involves collecting, recording, and interpreting personal narratives and memories about historical or current events.

Key Features

Involves extensive interviewing to gather first-person accounts. Provides subjective, rich insights into personal or communal experiences.

Focus Groups/Group Interviews

Focus Groups

Facilitated discussions to explore attitudes, opinions, or perceptions on specific issues.

Group Interviews

Broader, less structured discussions with a focus on gaining diverse perspectives.
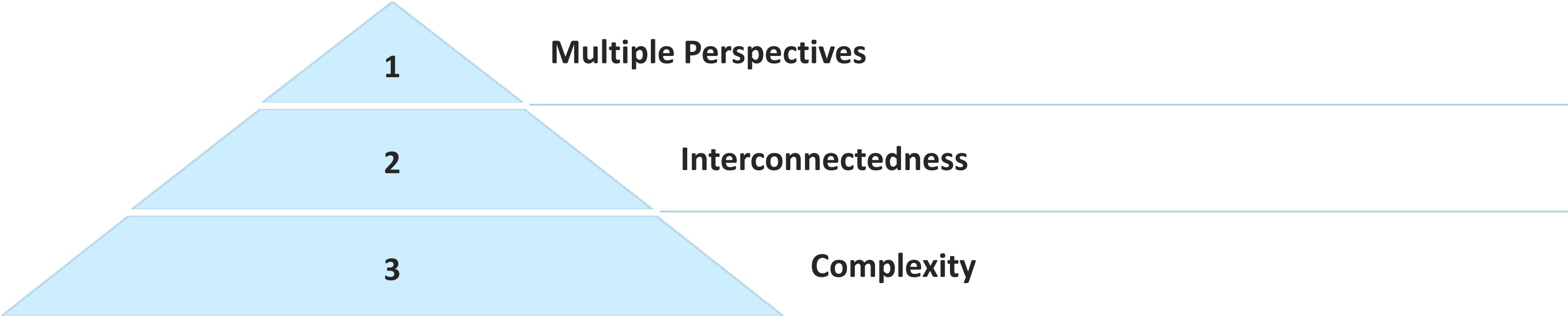
Participant Observation

Definition

Participant observation involves immersing oneself in a social setting to observe and record interactions or phenomena.

Key Features

Involves direct participation to develop rapport and gather rich data. Information can be recorded descriptively or categorized quantitatively.

Holistic Research

Holistic research embraces a philosophical approach that views phenomena from multiple perspectives to capture their complexity.

Community Discussion Forums

Open Participation

Accessible to all interested participants, typically self-selected.

Shared Concerns

Focuses on gathering community views on common issues.

Reflective Journal Logs

1	**Personal Observations**
2	**Introspective Analysis**
3	**Rich Dataset**

Reflective journal logs serve as a personal record of observations and reflections throughout the research process, providing a valuable source of data.

Philosophy-Guided Qualitative Designs

1 **Action Research**

Improving practices or addressing unmet needs through research and subsequent actions.

2 **Feminist Research**

Exploring women's experiences and challenges male bias in traditional research.

3 **Participatory & Collaborative Enquiry**

Encourages active involvement of research participants in the entire research process.