



Welcome to the Academy Of Wellbeing

Meet your Facilitators!



Nitish Kumar V

- Team Lead for Data Science at Catalyst Management Services.
- Over 8 years of experience in research, evaluation, grass route implementation, technology and data science.
- Postgraduate degree in rural management from Institute of Rural Management Anand (IRMA)
- Passionate about science, technology and social impact



Prerak Shah

- Senior Associate at Catalyst Management Services.
- Works across domains of livelihoods, public health, and education by leveraging technology and data for effective decision-making and real-time analytics
- Postgraduate degree in rural management from Institute of Rural Management Anand (IRMA).

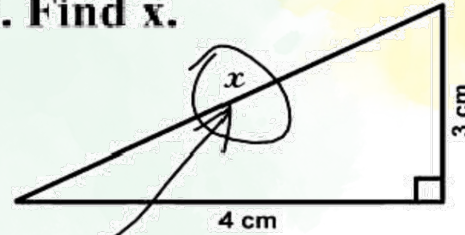


Basics of Research

What is research?

Finding answers to your questions!

3. Find x .



Here it is

- It contributes to a body of knowledge
- It follows scientific method(s)
- More than a set of skills, research is a way of thinking: examining critically the various aspects of your day-to-day professional work

Types of Research

Types of Research



Application perspective

Pure Research

- Developing theories and methods, less effective in solving immediate problems of day to day life.
- The knowledge produced through pure research is sought in order to add to the existing body of knowledge of research methods
- Not used much in the social sciences
- Examples : developing an instrument to measure the stress level of people, Developing a sampling technique that can be applied to a particular situation

Applied Research

- Solving practical problems – policies, administration, industries, market etc
- Most of the research in the social sciences is applied
- The research techniques, procedures and methods that form the body of research methodology are applied to the collection of information about various aspects of a situation, issue, problem or phenomenon
- This is used for policy formulation, administration and the enhancement of understanding of a phenomenon
- Example : A study on how to improve uptake of vaccinations in vulnerable populations

Objectives perspective

Descriptive research

1. A descriptive study attempts to describe systematically a situation, problem, phenomenon, service or programme, or provides information about, the living conditions of a community, or describes attitudes towards an issue
2. Examples : A study describing the attitude of students towards online learning

Correlational Research

1. Discover or establish the existence of a relationship/association/interdependence between two or more aspects of a situation
2. Example : A study on how social media influences self esteem in teenagers

Explanatory Research

1. Explain cause and effect or clarify 'why' and 'how'
2. Example : How the home environment affects children's level of academic achievement

Exploratory Research

1. Investigation of a social issue where very little information/knowledge is available
2. Example : A feasibility study to see if the topic warrants further research

Although, theoretically, a research study can be classified in one of the above objectives– perspective categories, in practice, most studies are a combination of the first three; that is, they contain elements of descriptive, correlational and explanatory research.

Examples to illustrate

| Type of research | Aim | Main theme | Examples |
|-----------------------------|-------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Descriptive Research | To describe what is prevalent | To describe what is prevalent regarding: <ul style="list-style-type: none"> ● a group of people ● a community ● a phenomenon ● a programme ● an outcome | <ul style="list-style-type: none"> ● Socioeconomic characteristics of residents of a community ● Attitudes of students towards quality of teaching ● Number of people living in a community ● Problems faced by new immigrants ● Effects Of living in a house with domestic violence |

Enquiry mode *

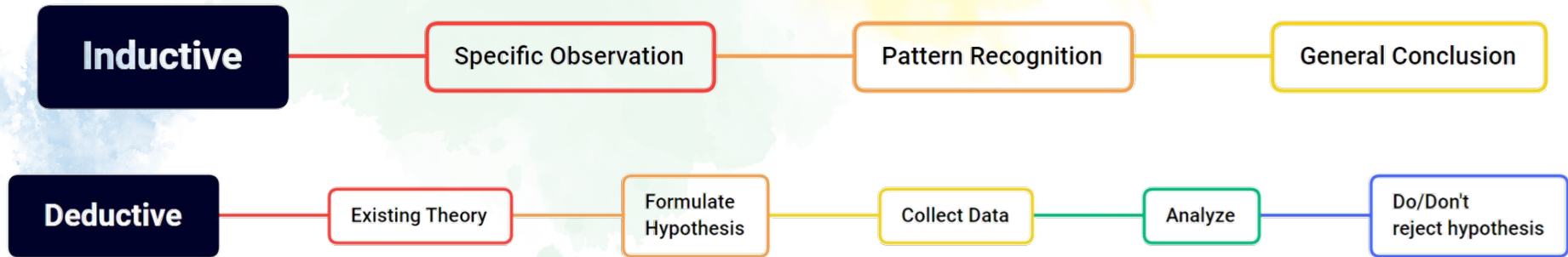
The structured approach

1. In the structured approach everything that forms the research process – objectives, design, sample, and the questions that you plan to ask of respondents – is predetermined
2. The structured approach is more appropriate to determine the extent of a problem, issue or phenomenon

The unstructured approach

1. The unstructured approach, by contrast, allows flexibility in all these aspects of the process
2. The unstructured approach is predominantly used to explore its nature, in other words, variation/diversity per se in a phenomenon, issue, problem or attitude towards an issue

Inductive vs Deductive Reasoning



Examples of advocacy research from around the world

Illinois child protection act : Senators receiving the research summary were significantly more likely (79% to 53%) to vote for the bill than those who didn't to pass a law that would require child safety seats for young children in the state.

Cigarette manufacturers for years produced phony scientific studies that "proved" that smoking was harmless and non-addictive, while reputable scientists invariably found the opposite. The reputable research convinced the Surgeon General's office, and a large majority of the American public, that profits were more important to the cigarette companies than people's lives, and smoking in America dropped sharply.

Suspending capital punishment : For example, in Illinois, research showed that a large number of prisoners on death row had been mistakenly convicted, exonerated by careful detective work or by previously-unavailable DNA testing. As a result, largely because of the public's apparently justified fear of mistakenly executing the innocent, capital punishment in that state was suspended.

Importance of research in advocacy

- Expertise on the issue
- Facts and statistics AND anecdotes
- Research can show you what's most likely to address your issue successfully
- Credibility
- Research can short-circuit the opposition

Stages of Research

1 - Deciding What

1. Formulate a research problem

2 - Planning How

1. Conceptualize a research design
2. Finalize Instruments of data collection
3. Select a sample population

3 - Actually DOING

1. Data collection
2. Data Analysis
3. Dissemination of findings

Formulating a research problem

Step 1: Identify a subject area. **Alcoholism**

Step 2: Divide the subject into many categories **Profile of alcoholics, causes of alcoholism, effects of alcoholism on family, community behavior towards alcoholics, effectiveness of treatments**

Step 3: Select one **Effect of alcoholism on family**

Step 4: Ask few questions: **What impact has alcoholism on marital relations? How does it the affect various aspects of children's lives? What are the effects on family's finances?**

Step 5: Double Check

Step 6: Reduce your questions: **How does alcoholism affect the various aspects of children's Lives?**

Step 7: Review related literature and previous researches **There are researches on the adverse impact of alcoholism on children's education, mental development, and health.**

Step 8: Reformulate and finalize your question(s): **How does alcoholism affect children's behavior with their classmates?**

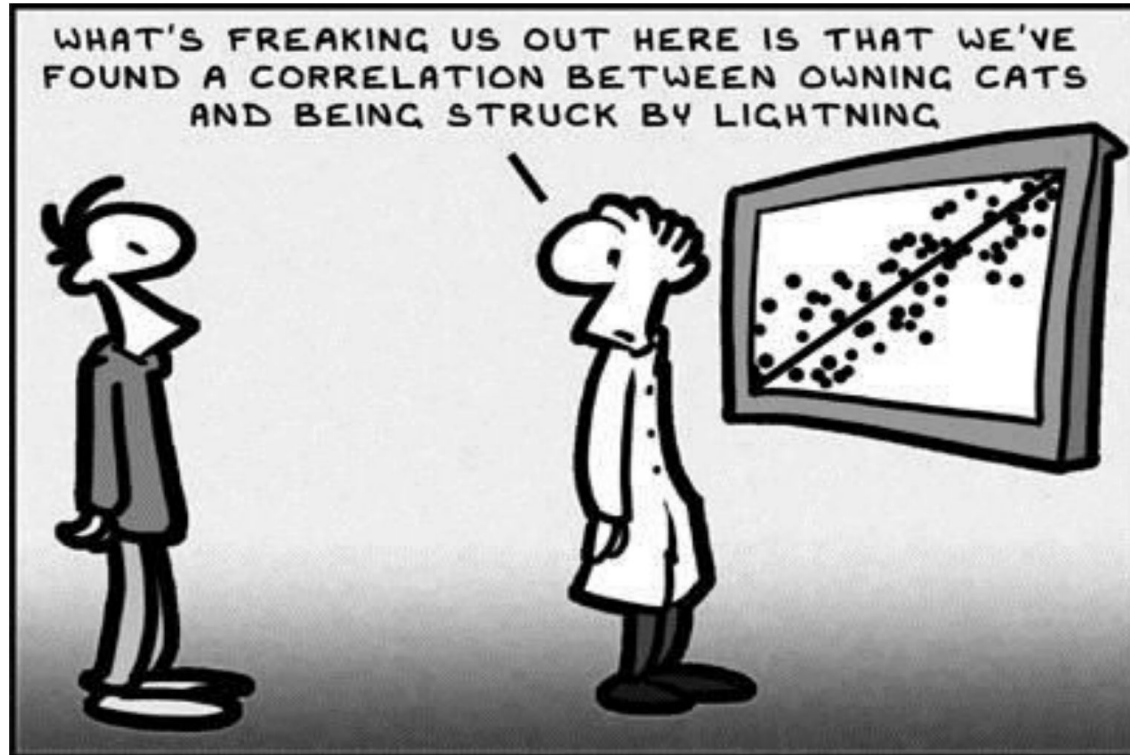
Research questions should neither be too specific nor vague

Languages of Research - Hypothesis

Hypothesis

1. A provisional supposition/prediction about the relationship between two or more social phenomena/events
2. In quantitative research, hypothesis has four main characteristics:
 - a. It is expressed as a statement, not a question.
 - b. It address a single relation between two phenomena
 - c. It is stated clearly and is logically consistent
 - d. It is empirically testable
3. Hypotheses are rarely stated in qualitative research. For most of the qualitative researchers, social behavior is a complex phenomenon and can not be explained through constant regularities
4. In qualitative research, hypotheses are used as descriptive assertions than relationship of variables

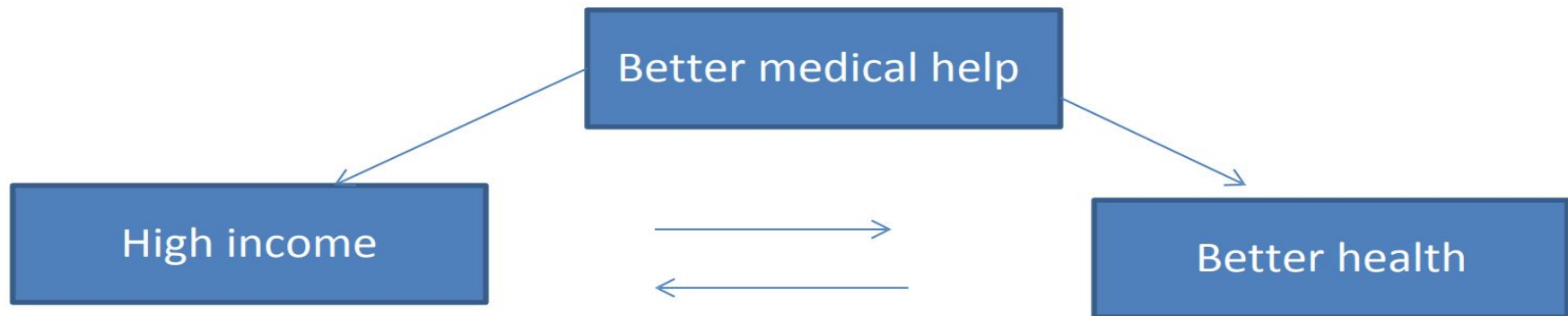
Languages of Research - Causality



Languages of Research - Causality

Three main criteria of causality:

- **Correlation:** The variables must be correlated
 - Changes in one are associated with changes in other
- **Time Order:** Cause takes place before the effect
- **Non Spurious:** Variables are non-spurious
 - Spurious relationship is a correlation between two variables, caused by third variable.



Languages of Research - Indicators and Variables

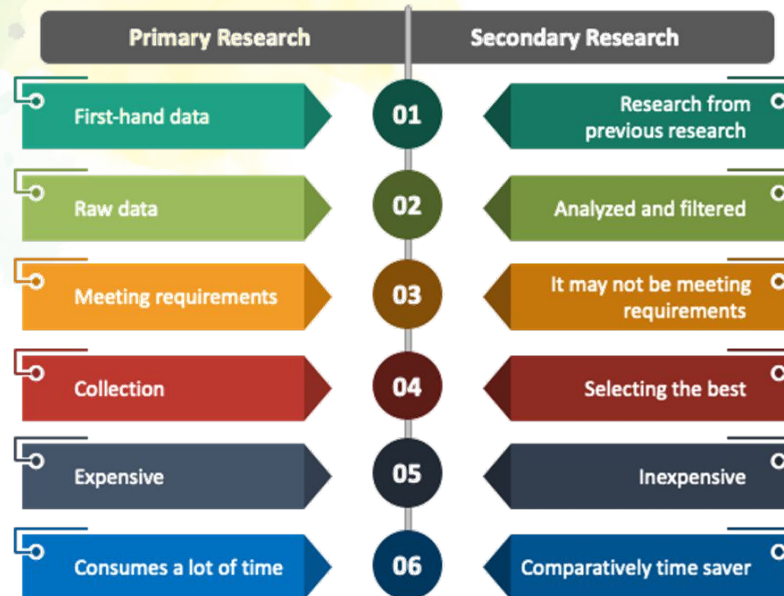
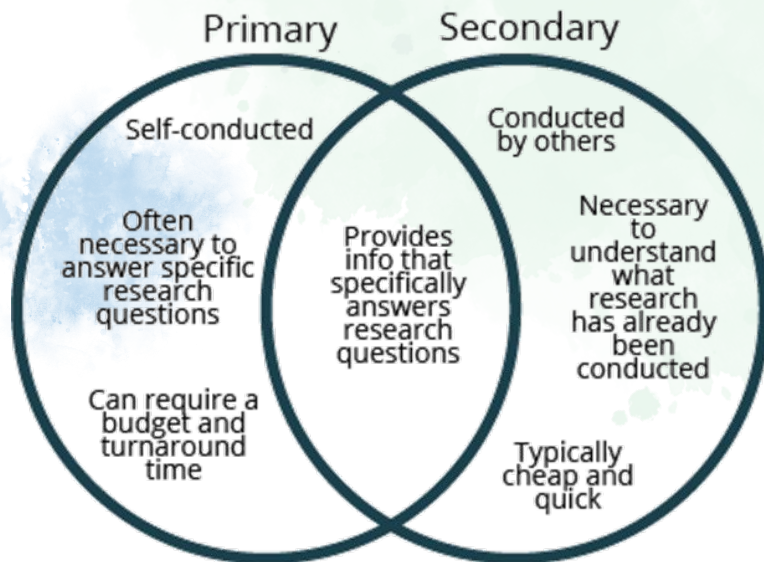
- A set of criteria, reflective of a concept, that helps measuring or assessing the concept
 - Indicators are needed to operationalize a concept
 - An indicator must have a logical link with the concept

| Research Issue/problem | Concepts | Indicators |
|--------------------------------------------------|---------------------------------|--------------------------------------------------------|
| To study the economic well being of upper castes | Richness/well-being | 1. Income 2. Assets |
| Quality of hospitality in a five star hotel | Effectiveness of guest services | 1. Increase in no of guests 2. Feedback from guests |

- Variable is an attribute of a concept that changes or varies: between people, locations, points of time, etc.
- Indicators are measured through variables.

| Concept | Indicators | Variables |
|---------------------------------|------------------------------------------------------|---------------------------------------------------------------------|
| Richness | 1. Income 2. Assets | 1. Income (> Rs. 5 lakhs) 2. Values of home, car, lands , etc. |
| Effectiveness of guest services | 1. Increase in no of guest 2. Feedback from guest | 1. No of guest served in a month/year 2. No of excellent per 100 |

Research methods



Research Designs

- Research design is a logical research plan or strategic framework to conduct a research.
- It includes:
 - Research questions/objectives/hypotheses
 - Methodological approach (method, data, sampling, scope, etc.)
 - Indicators and variables
 - Data collection tools & data collection plan
 - Analysis plan
- Types
 - Classical Experimental & Quasi-experimental Designs
 - Cross-section Design
 - Longitudinal Design
 - Exploratory Design
 - Case Study Design
 - Comparative Design

Activity Time!

- **PS1** - Smartphones usage has skyrocketed the past decade and colleges are looking at how to use smartphones as enablers to enhance students educational outcomes. To understand the patterns of smartphone usage among college students the college would like to conduct a study to understand types of activities they engage in, and any potential differences based on demographic factors. Can you design a study to understand students behaviour patterns on smartphone usage so that the college can get a sense of how to use this information to enhance learning outcomes for students?
- **PS2** - Mahatma Gandhi National Rural Employment Guarantee Act (MNREGA) provides 100 days of guaranteed wage employment to rural unskilled labour. In the district of Virudhunagar MNREGA has been a staple for people below poverty line since it's introduction. While there are lot of benefits that has been claimed, we would like to understand if there are reduction in migration of rural population from rural to urban areas. Design a study to understand if MNREGA has any relationship to migration in Viridhunagar.
- **PS3** - Virtual reality (VR) is a simulated experience that employs pose tracking and 3D near-eye displays to give the user an immersive feel of a virtual world. The technology has improved leaps and bounds in the last few years with the simulated reality being very close to the real world. One potential use case for VR in the social development space is the application of virtual Reality in Elderly Care, however there is very limited information available on the same. Design a study to understand the perceptions and potential applications of virtual reality (VR) technology in elderly care setting.
- **PS4** - Mentoring programs provide students with the opportunity to gain and refine important skills — such as problem-solving, interpersonal skills, and critical thinking. While these programs have been promoted heavily in the social development space it is important to truly understand how effective these are particularly on youth Empowerment. Design a study to determine whether participating in structured mentorship programs leads to increased self-confidence, skill development, and community engagement among young individuals.



Thanks!

Any questions?