

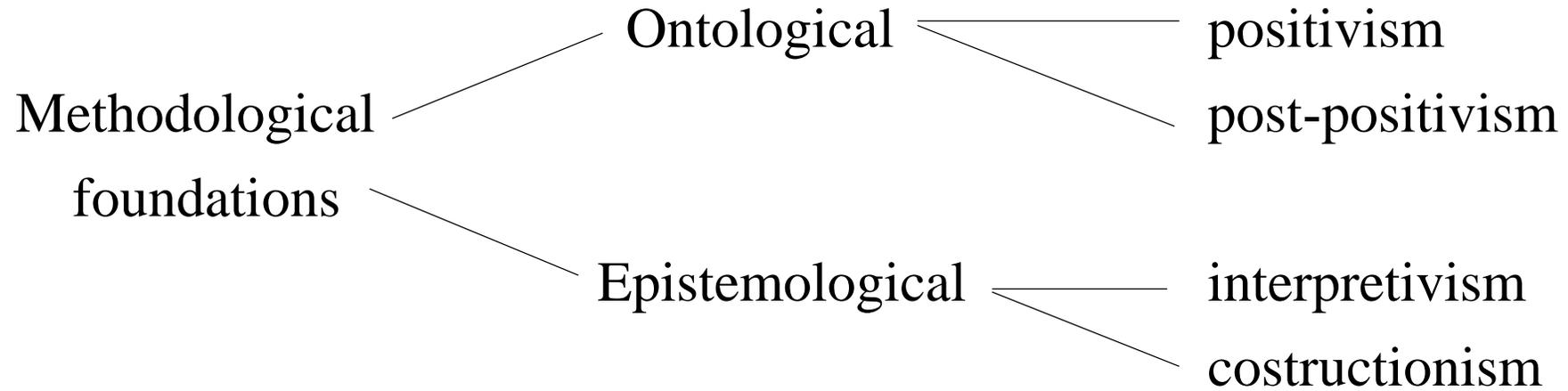
**ХҮМҮҮНЛЭГИЙН  
УХААНЫ  
ИХ СУРГУУЛЬ**  
*Бүтээгч оюун ухаан таны ирээдүйн амжилат*

to interpret focusing on some research problems:  
basic (science) problems  
social problems

# **RESEARCH METHODOLOGY: QUALITATIVE RESEARCH**

**2018**

# Qualitative research



## Research Purpose

The goal is: theory testing  
 theory building  
 theory extension

knowledge creation  
 knowledge transfer

Research Purpose	Underlying Epistemology	Research Methodologies
Theory building	Deductive/Inductive	Generalized ideas → specific observations Theory → hypothesis → Observation → Confirmation Special theory of Relativity (Einshtein.A) Atomic model, liquid helium II (N.Bohr) Superconductivity/super fluidity – Landau.L
Theory testing	Inductive/deductive	Specific observations → generalized ideas Observation → Pattern → tentative hypothesis → Theory (Liquid helium - super fluidity/superconductivity P.Kapitsa)

**HYPOTHESIS** It is a tentative prediction or explanation of two or more variables

A hypothesis is an idea or proposition that can be tested by observations or experiments

Gregor Mendel in 1865:

1. *In the organism there is a pair of factors that controls the appearance of a given characteristic*
2. *The organism inherits these factors from its parents, one from each*

**Law** – a description of how natural phenomenon will occur under certain circumstances

- *Newton's Law of Universal Gravitation*
- *The Law of Conservation of Energy*

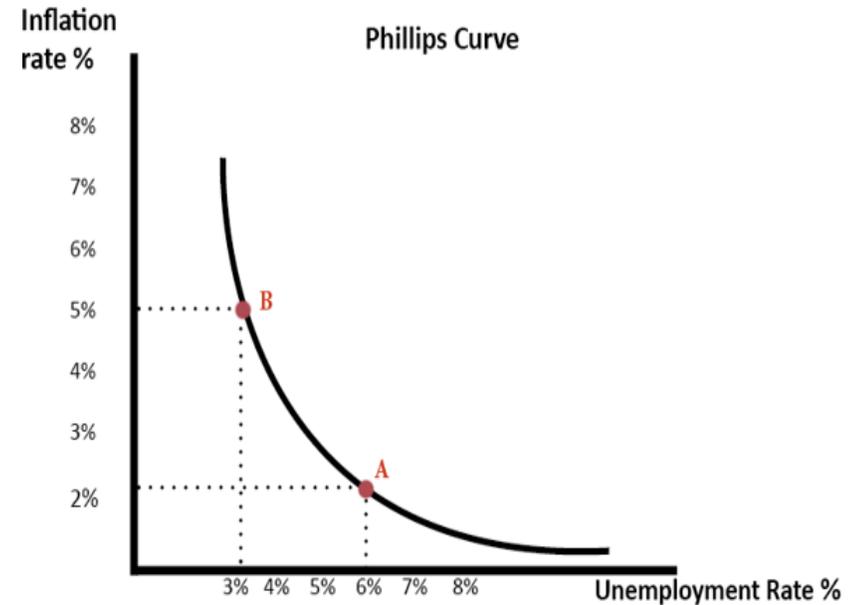
### TYPES OF SCIENTIFIC MODELS

Model	A representation designed to show the structure or workings of an object, system
Physical Model	Such as or a model of an atom or a model of Jet fighter
Mathematical Model	Constructed from mathematical equations (population growth or climate patterns)
Conceptual Model	a system of ideas or comparisons that support an idea such as the Big Bang Theory.
Theory	An explanation that ties together many hypothesis and observations.

Research models:

Iconic models - a mirror image of the target.

Idealized models - a limited set of properties  
(Phillips curve as a relationship between  
inflation and unemployment)



Analogical models - the hydraulic model of an economic system,  
- the billiard ball model of a gas,  
- the computer model of the mind liquid drop model of the nucleus.

Models of theory - Euclidean axioms and the theorems derived from these axioms.

Axiom: any two points can be joined by a straight line,

Theorem – the number of primes is infinite.

Simulation - simulation study managing uncertainty in supply chains,  
- simulation of a system or model of life, circumstances.

## Systems

A system is a set of interacting or interdependent entities, real or abstract, forming an integrated whole.

Core concepts for describing reality in non living and living systems.

space

system

time

entropy

relativity

change

life

casualty

consciousness

structure

complexity

function

fields

interactions

energy

diversity

particles

organization

# System

General relativity – Big Bang theory (Georges Lemaitre and)

Expanding Universe theory (Friedmann.A)

Distance between two points is actually expanding over time/on a macro scale where gravity has less of an influence

Geometry of the Universe is determined by the density mass and energy – positive/negative curvature.

# General system research:

Cybernetics

Complex adaptive systems

Living systems theory

Organizational theory

Information system theory

Systems engineering

Sociocybernetics (+sociology)

Systems biology

System dynamics

System psychology

## Comparison of qualitative & quantitative research

	Qualitative	Quantitative
Definitions	a systematic subjective	a formal, objective, systematic
Goals	To gain insight; explore the depth	To test cause and effect relations
Characteristics	<ul style="list-style-type: none"> <li>• Holistic</li> <li>• Subjective</li> <li>• Inductive reasoning</li> <li>• Develops theory</li> <li>• Interpretation</li> <li>• Basic element of analysis: words</li> <li>• Uniqueness</li> </ul>	<ul style="list-style-type: none"> <li>• Reductionistic</li> <li>• Objective</li> <li>• Logistic, deductive reasoning</li> <li>• Knowing cause &amp; effect, relationships</li> <li>• Tests theory</li> <li>• Basic element of analysis: numbers, statistical analysis</li> <li>• Generalization</li> </ul>

## Specific qualitative approaches

### Phenomenology

Purpose	<ul style="list-style-type: none"><li>• to describe experiences as they are lived</li><li>• examines uniqueness of individual's lived situations</li></ul>
Research question development	<ul style="list-style-type: none"><li>• What is the nature of the human being?</li><li>• How is the diffusion of air freshener influenced</li></ul>
Method	<ul style="list-style-type: none"><li>• Sampling &amp; data collection</li><li>• Describe the phenomenon</li><li>• Direct observation</li><li>• Audio or videotape</li></ul>
Data analysis	<ul style="list-style-type: none"><li>• Classify &amp; rank data (Big data-mixed approach)</li></ul>
Outcomes	<ul style="list-style-type: none"><li>• Data interpretation, from subject's point-of-view</li><li>• Structural explanation of findings is developed</li></ul>

## Ethnography

Purpose - to describe a culture's characteristics

### Method

- Identify culture, variables for study, & review literature
- Data collection - gather data through direct observation & interaction with subjects

Analysis - describe characteristics of culture

Outcomes - interpretation of culture

## Historical

Purpose - describe and examine events of the past to understand the present and anticipate potential future effects

### Method

- Formulate idea
- Develop an inventory of sources
- Clarify validity & reliability of data
- To organize investigative process
- Collect data

### Analysis

- synthesis of all data;

### Outcomes

- presentation - biography, chronology

## Case study

Purpose	<ul style="list-style-type: none"><li>• describe in-depth the experience of a person, family, community, or institution</li></ul>
Method	<ul style="list-style-type: none"><li>• direct observation and interaction with subject</li></ul>
Analysis	<ul style="list-style-type: none"><li>• synthesis of experience</li></ul>
Outcomes	<ul style="list-style-type: none"><li>• in-depth description of the experience</li></ul>

## Data collection

- Interview with audiotape & videotape
- Direct, non-participant observation
- Participant observation

## Bracketing

- Complete absorption in phenomenon
- Keeping an open context
- Analysis and interpretation of data

## Participant observation

- Natural settings (e.g. hospital, schools)
- Observer can be covert or overt
- Observations are not systematic
- Researcher engages in variety of activities: participation, documentation, interviewing
- Balance between participation and observation
- Notes of observations: substantive, methodological, analytical

### Advantages

- Useful when phenomena cannot be replicated in lab
- Insight into chronology of events & development over time

### Disadvantages

- Reliability and validity
- Outsiders perspective

## Interviews

- Unstructured
- Semi-structured
- Structured

### Semi-structured Interviews

- Usually face-to-face (but also: telephone/internet)
- Order of questions is flexible
- Relatively non-directive, but not completely

Recording the Interviews: Establishing set of categories/ codes from textual data (questionnaires, interviews)

- Consider reliability and validity

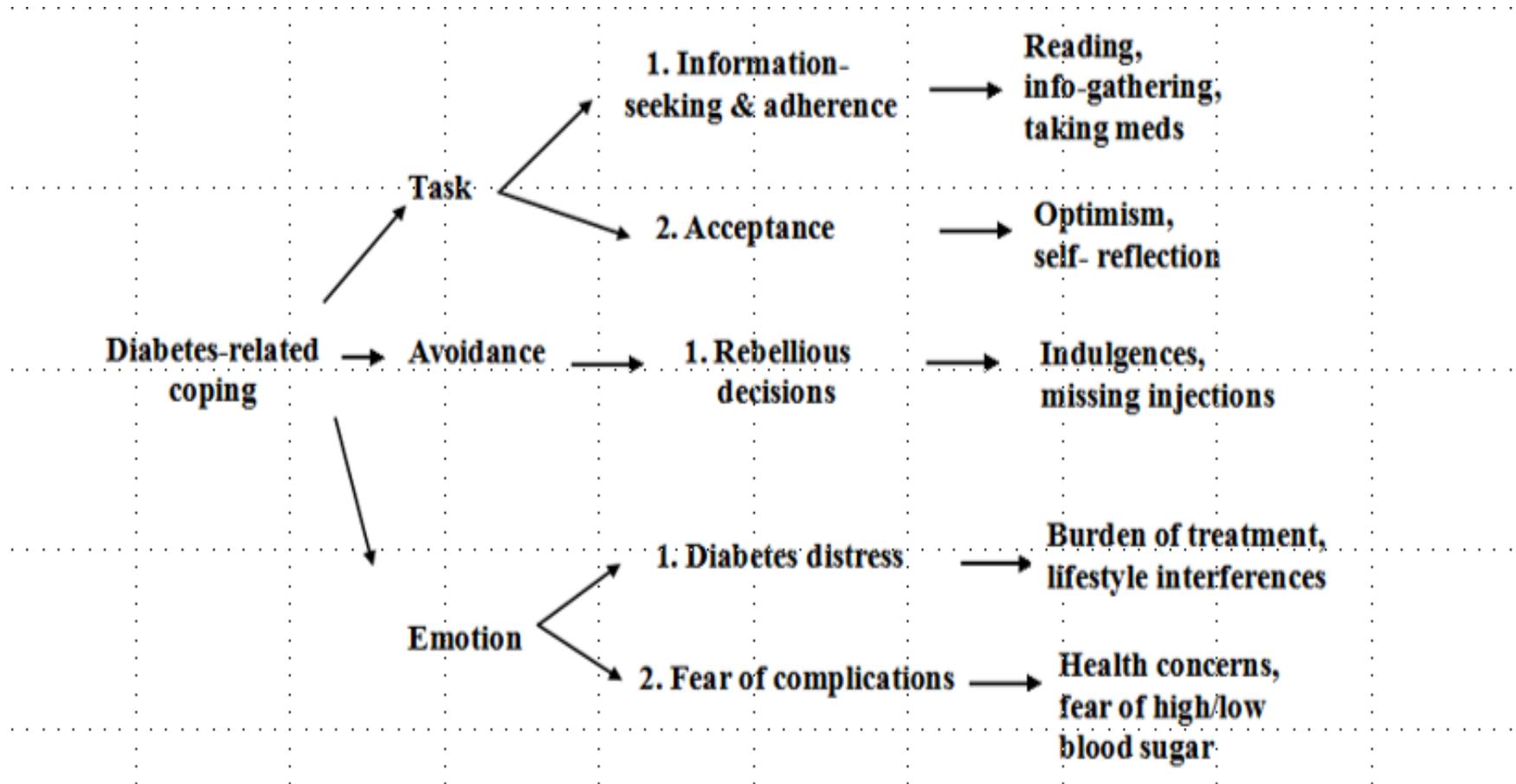
## Grounded theory

Purpose - theory development	<ul style="list-style-type: none"><li>• Formulation, testing of propositions to develop a theory</li></ul>
Method - a comparative process	<ul style="list-style-type: none"><li>• Data collection - interview, observation, record review, or combination</li></ul>
Analysis	<ul style="list-style-type: none"><li>• Theory supported by examples from data</li><li>• Concept development</li><li>• Concept modification &amp; integration</li></ul>

## Grounded theory

‘GLASERIAN’	‘STRAUSSIAN’
Emerging theory	Forcing the theory, with structured questions
Development of a conceptual theory	Conceptual description (description of situations)
Theoretical sensitivity (the ability to perceive variables and relationships) comes from immersion in the data	Theoretical sensitivity comes from methods and tools
The theory is grounded in the data	The theory is interpreted by an observer
The credibility of the theory, or verification, is derived from its grounding in the data	The credibility of the theory comes from the rigour of the method
The researcher is passive	The researcher is active
Data reveals the theory	Data is structured to reveal the theory
Coding is less rigorous	Coding is more rigorous and defined by technique. Codes are derived from ‘micro-analysis
Two coding phases or types, simple (fracture the data then conceptually group it) and substantive (open or selective, to produce categories and properties)	Three types of coding, open (identifying, naming, categorising and describing phenomena), axial (the process of relating codes to each other) and selective (choosing a core category and relating other categories to that)
Regarded by some as the only ‘true’ GTM, Google toolbox for mac	Regarded by some as a form of qualitative data analysis (QDA Qualitative data software)

## Example from diabetes study



## Qualitative market research

- Observations or “Shop-Alongs”
- In-Home Videos
- Lifestyle Immersion and real dialogue
- Online Focus Groups

How to Analyze Qualitative Data: Qualitative data can be classified codified and summarized

Variables	13-19 Years	20-25 Years	26-35 Years
General Food Category Likes	<ul style="list-style-type: none"> <li>• Fast food and ‘handy’ food with friends</li> <li>• Desi Food with family</li> </ul>	<ul style="list-style-type: none"> <li>• Fast food (pizza and burgers)</li> <li>• Desi food</li> </ul>	<ul style="list-style-type: none"> <li>• Fast food</li> <li>• Continental Food</li> <li>• Good understanding of why it is called fast food</li> </ul>
What to eat depends on:	<ul style="list-style-type: none"> <li>• Mood</li> <li>• Budget (some cuisines are considered expensive)</li> </ul>	<ul style="list-style-type: none"> <li>• Money</li> <li>• Distance or accessibility</li> </ul>	<ul style="list-style-type: none"> <li>• Mood depends upon whether you are dinning out with friends or with family</li> </ul>
Which restaurant to order from depends on:	<ul style="list-style-type: none"> <li>• Budget</li> <li>• Food category (mood)</li> <li>• Consultation with friends</li> <li>• Time taken for delivery</li> <li>• Delivery Charges</li> </ul>	<ul style="list-style-type: none"> <li>• Budget</li> <li>• Location</li> <li>• Consulting with friends</li> </ul>	<ul style="list-style-type: none"> <li>• Mood</li> <li>• Quality</li> <li>• Time taken for delivery</li> </ul>

Multidisciplinary research: (Ethogenic and psychology research)

Neuro marketing: A qualitative analysis of a manager's perception

“Freud Psychoanalysis theory 1839 determines that most behavior is controlled by unconscious mind.”

*“95% of our behavior is based upon unconscious drivers”*

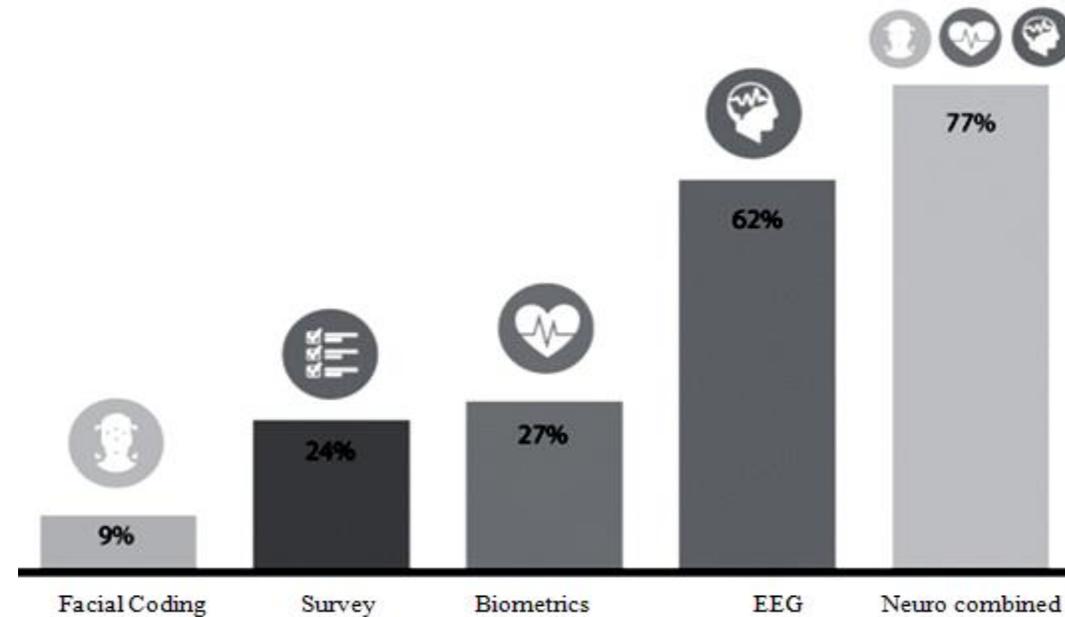


Figure: Unconscious Mind, Emotion And Human Behavior In Decision Making

# Writing a research paper and thesis

## Qualitative format I

### Introduction

- Statement of the problem
- Purposes of the study
- The Grand tour question and sub questions
- Definition of terms
- Significance of the study

### Procedure

- Rationale for a qualitative design
- Data collection
- Data reduction /Analysis procedures
- Methods for verification
- Outcome of the study and its relation to theory
- Appendices

## Qualitative Format II

- Introduction and General topic
- Statement of the problem
- Significance of the research
- Sample selections
- Research strategies
- Data collection techniques
- Managing and recording data
- Data analysis strategies
- Management plan, timeline, feasibility
- Appendices

## Master's thesis example

Chapter I. Introduction

Chapter II. Theory. Literature review. Organize by idea

Chapter III. Methods. Outline in a few pages.

Chapter IV. Findings.

Chapter V. Discussion.

Chapter VI. Conclusion.

Appendices

Bibliography.

## Writing a dissertation (Ph.D)

Chapter 1: Purpose and Significance of the study

Chapter 2: Review of the literature

Chapter 3: Methodology

Chapter 4: Findings

Chapter 5: Discussion

# Dissertation Outline

## Chapter 1: Introduction

- Introduction
- Background of the Problem
- Statement of the Problem
- Purpose of the Study
- Research Questions
- Significance of the Study
- Definition of Terms
- Assumptions, Limitations, and Delimitations
- Conclusion

## Chapter 2: Review of the Literature

- Introduction
- Search Description
- Conceptual or Theoretical Framework
- Review of Research (organized by variable or themes)

### Chapter 3: Methodology (Qualitative)

- Introduction
- Research Design
- Research Questions
- Setting
- Participants
- Data Collection
- Data Analysis
- Conclusion

### Chapter 3: Methodology (Quantitative)

- Introduction
- Research Design
- Research Questions and Hypotheses
- Population and Sample
- Instrumentation
- Data Collection
- Data Analysis
- Conclusion

### Chapter 3: Methodology (Mixed)

- Introduction
- Research Design
- Research Questions and Hypotheses
- Setting and Sample
- Data Collection
- Data Analysis
- Conclusion

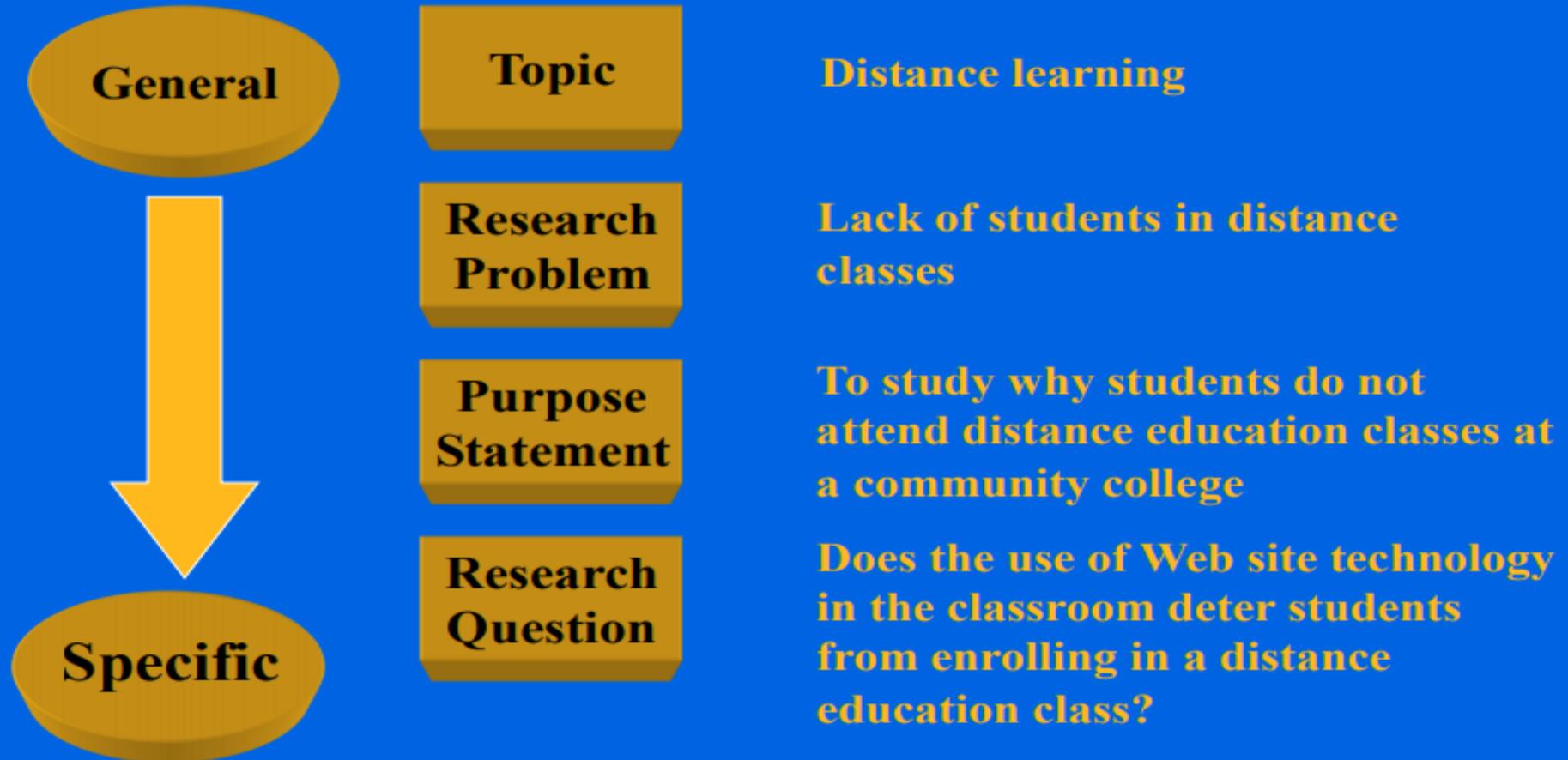
### Chapter 4: Research Findings

- Introduction
- Findings (organized by Research Questions or Hypotheses)
- Conclusion

### Chapter 5: Conclusions, Discussion, and Suggestions for Future Research

- Introduction
- Summary of Findings
- Conclusions (organized by Research Questions or Hypotheses)
- Discussion
- Suggestions for Future Research
- Conclusion

# Differences among the Topic, Problem, Purpose, and Questions

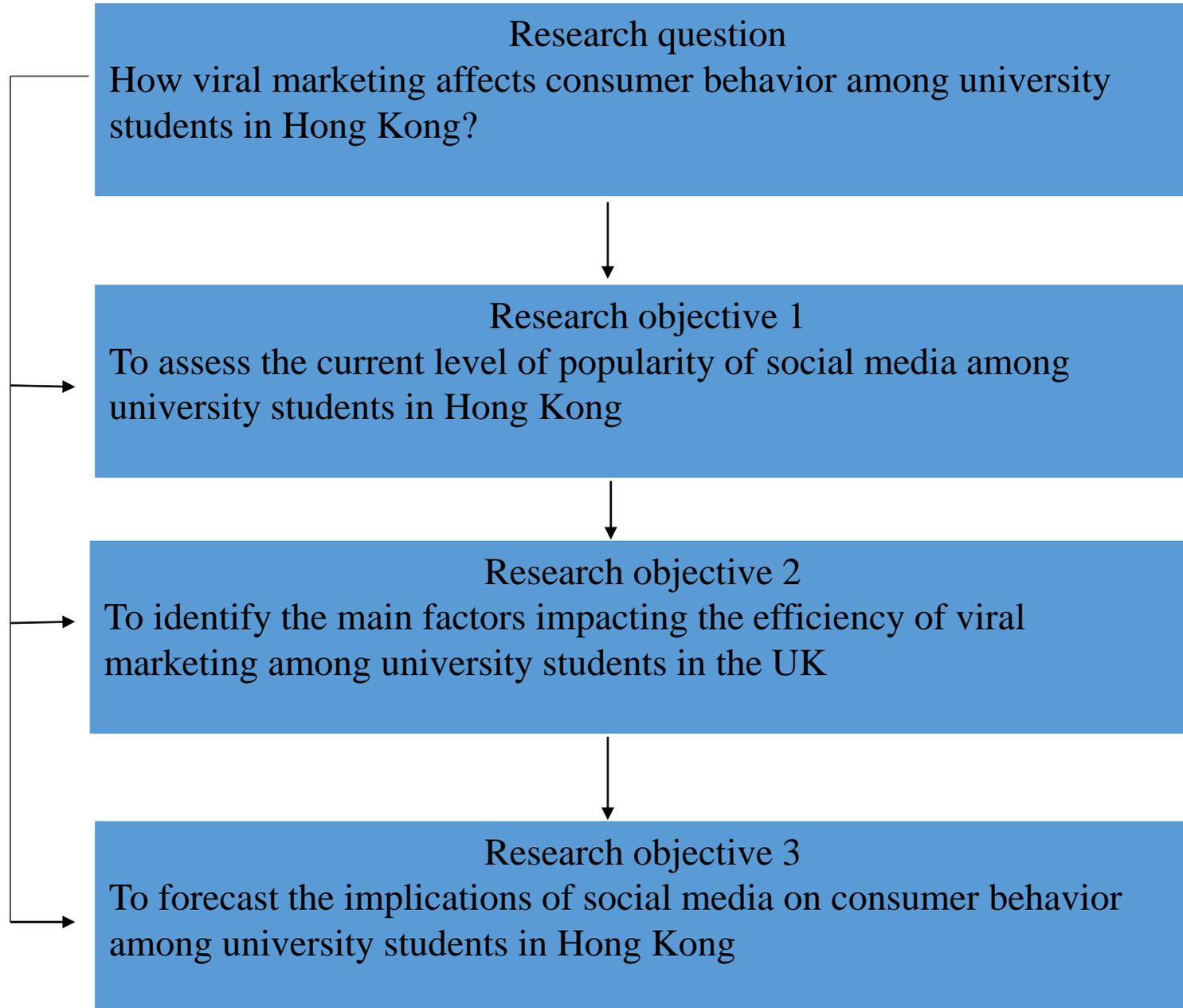


## Terms Relating to Research Problems With Examples

Team	Example
Topic	Side effect of chemotherapy
Research problem (problem statement)	Nausea and vomiting are common side effects among patients on chemotherapy, and interventions to date have been only moderately successful in reducing these effects. New interventions that can reduce or prevent these side effects need to be identified.
Statement or purpose	The purpose of the study is to compare the effectiveness of patient-controlled versus nurse-administered antiemetic therapy for controlling nausea and vomiting in patients on chemotherapy.
Research question	What is the relative effectiveness of patient-controlled antiemetic therapy versus nurse-controlled antiemetic therapy with regard to (1) medication consumption and (2) control of nausea and vomiting in patients on chemotherapy?
Hypotheses	Subjects receiving antiemetic therapy by a patient-controlled pump will (1) be less nauseous, (2) vomit less, and (3) consume less medication than receiving nurse-administered therapy.

## Research question type

	Formulation
Descriptive research	<i>What are the characteristics of x? Who should perform x? What does x look like?</i>
Comparative research	<i>What are the differences between x and y? What are the similarities?</i>
Defining research	<i>What stage of the development is x in? How can x be characterized? What is an example of x?</i>
Evaluative/normative research	<i>What are the positives or values of x? How well does x work? How appropriate or desirable is x? What are the advantages and disadvantages of x?</i>
Explanatory/exploratory research	<i>What is x a consequence of? How did that happen? What are the causes?</i>
Predictive testing	<i>To what extent will x happen? What will cause it to happen? What must actors be prepared for?</i>
Framing, problem-solving and advisory	<i>How can it be ensured that x happens? How can x be undertaken? What can be done to solve problem x?</i>
Testing research	<i>What effect does x have on y? Is x more ____ than y?</i>



## SMART research objectives

To study the impacts of management practices on the levels of employee motivation at Coca-Cola US by December 5, 2018

Analyzing changes in consumer behaviour in catering industry in the 21<sup>th</sup> century in the UK by March 1, 2019

Formulating recommendations to Toyota Motor Corporation management on the choice of appropriate strategy to enter Vietnam market by June 9, 2018

Assessing impact of integration of social media into marketing strategy on the level of brand awareness by March 30, 2017

Identifying main time-management strategies used by managers of Accenture France by December 1, 2017

# Writing a research paper

Abstracts and keywords:

Introduction

Why is your research important?

What is known about the topic?

What are your hypotheses?

What are your objective?

Materials and Methods

The introduction should have some of the following elements

a short story, example, statistic single datum, or historical context that introduces the paper topic

an overview of any issues involved with the subject

tell what the overall paper will focus on

briefly outline the main points in the paper

Give strong examples, details, and explanations to support each main points

Address any counterarguments and refuse those arguments

Results

Discussion and Conclusions

[www.humanities.mn](http://www.humanities.mn)