

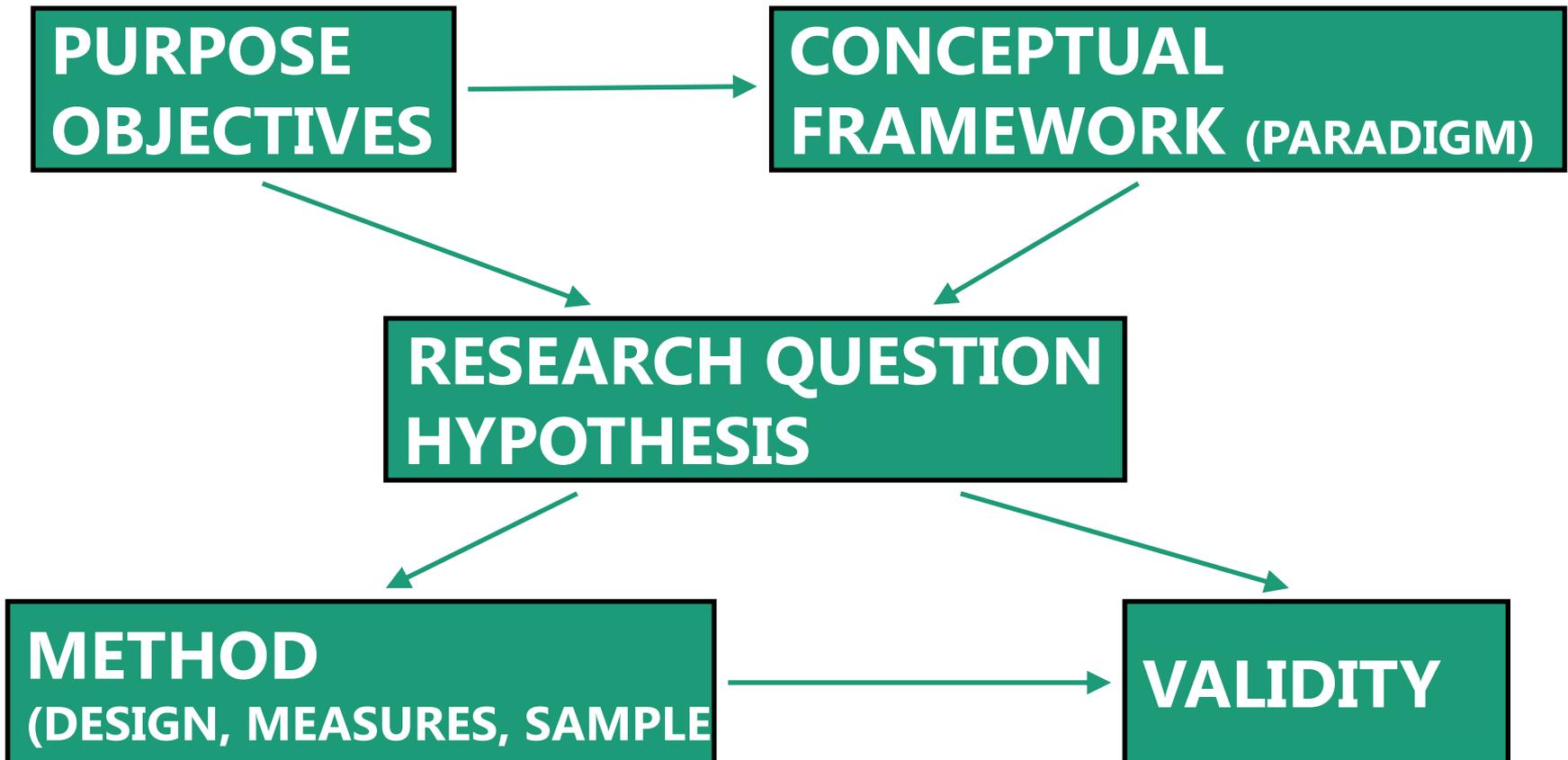
Lecture 2

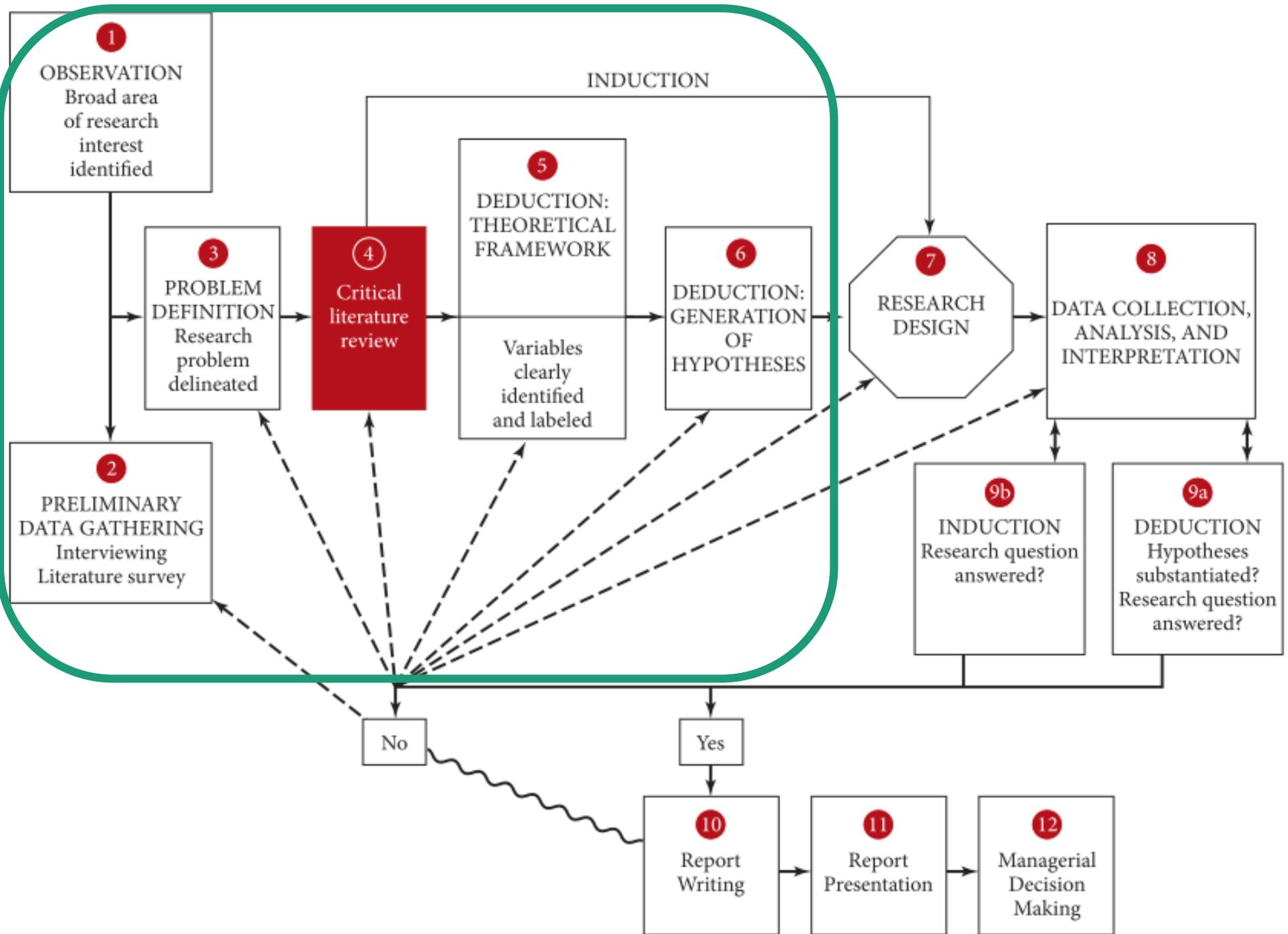
DHX_MET1 Methodology 1

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From a topic to
hypothesis

Identification of a problem - topic

- From previous research
- From real life (e.g. business)
- „Big Questions“ – novel, creative questions starting a research program
- In school – looking for a research problem
- Emerges from research or mimicking research

Preliminary research

Get a better understanding of the problem to be able to narrow it into a **researchable topic**

- Identify what is there to be known **about the phenomenon** of interest
- Learn **about the context** in which you want to study the phenomenon
- Asking WHY as a way to identify what social-science theory is needed.

Problem statement

...unambiguous, specific, and focused, and addressed from a specific academic perspective.

- **Research purpose** - motivation
- **Research objectives** - goals
- **Research questions** – information needed to meet the goals

EXAMPLE OF A PROBLEM STATEMENT

CAA Airlines carries out charter and regular flights to medium-haul destinations – such as the Mediterranean, North Africa and the Red Sea – and to long-haul destinations such as the Caribbean. Today, CAA's fleet consists of three (new) Boeing 737-800s and four (outdated) Boeing 767-300s. Because the Boeing 767s are rather outdated they need more maintenance than the average airplane. Despite an intensive maintenance program, these planes have a lot of technical problems. Consequently, the long-haul fleet of CAA has needed to deal with a lot of delays recently. New long-haul planes have been ordered, but these planes will not be delivered before 2016. This means that more delays will inevitably occur. This may translate into much frustration among airline passengers, to switching behavior, and to negative word-of-mouth communication. These feelings and behaviors of consumers may eventually have negative effects on the performance and the profitability of the firm.

Prior research has claimed that service waits can be controlled by two techniques: operations management and management of perceptions. For CAA Airlines it is very difficult to obtain “zero defects” (no delays). Hence, this project will focus on managing the perceptions of the wait experience: because CAA Airlines cannot control the actual amount of delays and the duration, the company must focus on managing the customers' perception of the waiting experience. The purpose of this study is twofold: (1) to identify the factors that influence the passengers' waiting experience and (2) to investigate the possible impact of waiting on customer satisfaction and service evaluations.

Therefore, this project focuses on the following research questions:

1. What are the factors that affect the perceived waiting experience of airline passengers and to what extent do these factors affect the perception of waiting times?
2. What are the affective consequences of waiting and how does affect mediate the relationship between waiting and service evaluations?
3. How do situational variables (such as filled time) influence customer reactions to the waiting experience?

Drawing from prior research in the areas of waiting, service evaluations, and mood theory, hypotheses are generated regarding the relationships among a delay, the waiting experience, affect, and service evaluations. The hypothesized relationships are tested in a field setting involving delayed CAA airline passengers.

BOX 3.6

BUSINESS PROBLEM TRANSLATED INTO PROBLEM STATEMENT

Problem	Problem statement	
	Research objective	Research questions
Frequent and long delays may translate into much frustration among airline passengers, to switching behavior, and to negative word-of-mouth communication. These feelings and behaviors eventually have negative effects on the performance and the profitability of the firm.	The purpose of this study is twofold: (1) to identify the factors that influence the passengers' waiting experience and (2) to investigate the possible impact of waiting on customer satisfaction and service evaluations.	<ol style="list-style-type: none">1. What are the factors that affect the perceived waiting experience of airline passengers and to what extent do these factors affect the perception of waiting times?2. What are the affective consequences of waiting and how does affect mediate the relationship between waiting and service evaluations?3. How do situational variables (such as filled time) influence customer reactions to the waiting experience?

Qualities of a problem statement

- Relevance
 - Nothing known
 - Fragmented knowledge in need of integration
 - Contradictory findings
 - Findings differ or do not hold in different settings
- Feasibility
- Interest(ingness)
- Worth knowing not only for you

RESEARCH QUESTION

HANDLE OF YOUR STUDY

- Provides focus
 - Invites hypotheses
 - Justifies the costs
-
- An answer must be believed to be found
 - It really must be a question
 - Is as narrow as necessary for feasibility
 - intersubjectively meaningful



10. A typical example of a research questions is: “What is the effect of reward system on productivity?”

What is the problem here, according to the researcher?

And what is a possible solution to the problem, according to the same researcher?

Types of research questions

- Exploratory
- Descriptive
 - Correlational
- Causal

1. The independent and the dependent variable should covary.
2. The independent variable (the presumed causal factor) should precede the dependent variable.
3. No other factor should be a possible cause of the change in the dependent variable.
4. A logical explanation (a theory) is needed and it must explain why the independent variable affects the dependent variable.

Research proposal

1. A working title.
2. Background of the study.
3. The problem statement:
 - a. The purpose of the study
 - b. Research questions.
4. The scope of the study.
5. The relevance of the study.
6. The research design, offering details on:
 - a. Type of study – exploratory and descriptive
 - b. Data collection methods
 - c. The sampling design
 - d. Data analysis.
7. Time frame of the study, including information on when the written report will be handed over to the sponsors.
8. The budget, detailing the costs with reference to specific items of expenditure.
9. References

Checklist for dealing with ethical considerations and dilemmas during the first stages of the research process

- Why is this research project worth doing?
- How does the organization benefit from this project?
- What impact, if any, does your research have on the organization?
- Do you have the skills and resources to carry out this research project?
- Have you informed all the employees of the research project? Why not?
- Do you explain the purpose of your research to the participants? Why not?
- Are participants given the opportunity to decline participation?
- Are participants able to withdraw their consent at any point? How?
- Does the research cause you to have access to sensitive information? How will you ensure the confidentiality of this information?
- How will you ensure individual respondents cannot be identified from any research reports or papers that are produced?
- Are there any possible negative effects (long or short term) on your participants (including any physical or psychological harm)?
- How will you report back from the research to your participants?
- Where ethical dilemmas have arisen, what steps have you taken to resolve these?

Critical literature review

Purposes

1. Build on knowledge you will contribute to
2. Improve your thinking about the problem
3. Avoid “reinventing the wheel”
4. Conceptual framework: relevant terminology, concepts & their relationships
5. Knowledge of the research methods
6. The research effort can be contextualized in a wider academic debate. In other words, it allows you to relate your findings to the findings of others.

Ultimate purpose: propose plausible and testable hypotheses within the conceptual framework

Data sources

- Textbooks
- Journals – which are the main ones?
- Theses
- Conference proceedings
- Unpublished manuscripts
- Reports
- Newspapers
- The Internet

DATABASES

Evaluating the literature

- The purpose of **abstract** is to assess **relevance**, nothing else.
- Social-science journal articles tend to have narrative-review-study-like introductions
- Number of citations is just a hint (correlated with age)

- Is the main research question or problem statement presented in a clear and analytical way?
- Is the relevance of the research question made transparent?
- Does this study build directly upon previous research?
- Will the study make a contribution to the field?
- Is there a theory that guides the research?
- Is the theory described relevant and is it explained in an understandable, structured, and convincing manner?
- Are the methods used in the study explained in a clear manner (description of methods)?
- Is the choice of certain methods motivated in a convincing way (justification of methods)?
- Is the sample appropriate?
- Are the research design and/or the questionnaire appropriate for this study?
- Are the measures of the variables valid and reliable?
- Has the author used the appropriate quantitative and/or qualitative techniques?
- Do the conclusions result from the findings of the study?
- Do the conclusions give a clear answer to the main research question?
- Has the author considered the limitations of the study?
- Has the author presented the limitations in the article?

AT THE
END of the
COURSE

The critical literature review needs to be written

- As a part of the argumentation for the purpose of your study in a proposal
- As a part of the introductory section of any form of report of your findings
- Academic writing and citing...

Theoretical framework – concepts & relationships between them

- **Concepts** - generalisations of particular *characteristics* of the *phenomena* of interest allowing us to think about them without drowning in their endlessly varying *instances*
 - **Variables** as measured, observed concepts
 - Competing **definitions**
- Theory of the phenomenon
 - Concepts/variables used to describe the phenomenon
 - Ideas about **how** the concepts/variables are related (description) and **why** (explanation).
 - IVs, DVs, moderators & mediators
- A very condensed summary of what we know allowing us to propose hypotheses

Hypotheses

- Expected answers to our research question inferred from theory.
- Expectations about what will be observed (what will be found in our data)

If young women are more frequently exposed to images of thin models in advertisements, then they will be more likely to express dissatisfaction with their body weight.

- Statements about the world that we provisionally believe in.

Young women ~~will~~ be more likely to express dissatisfaction with their body weight, when they are more frequently exposed to images of thin models in advertisements.

Checklist questions – ask yourself

- What exactly do I want to find out?
- Can it be found by any means other than research?
- What kind of an answer will satisfy me? What can I use the answer for? And others?
- For what set of phenomena will the answer apply? And for how long?
- Why me? Who else wants to know?
- Can I imagine how to get the answer? Will I be able to manage it (by myself)?

What next?

Now we have a good idea about what the research questions are and what answers we expect.

Next we need to think about how to get the answers.

Since there is a huge number of possibilities we generally start our thinking from prototypical templates – research designs.