

Research Design for Innovation Studies

(Innovation System Engineering)

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Week 7

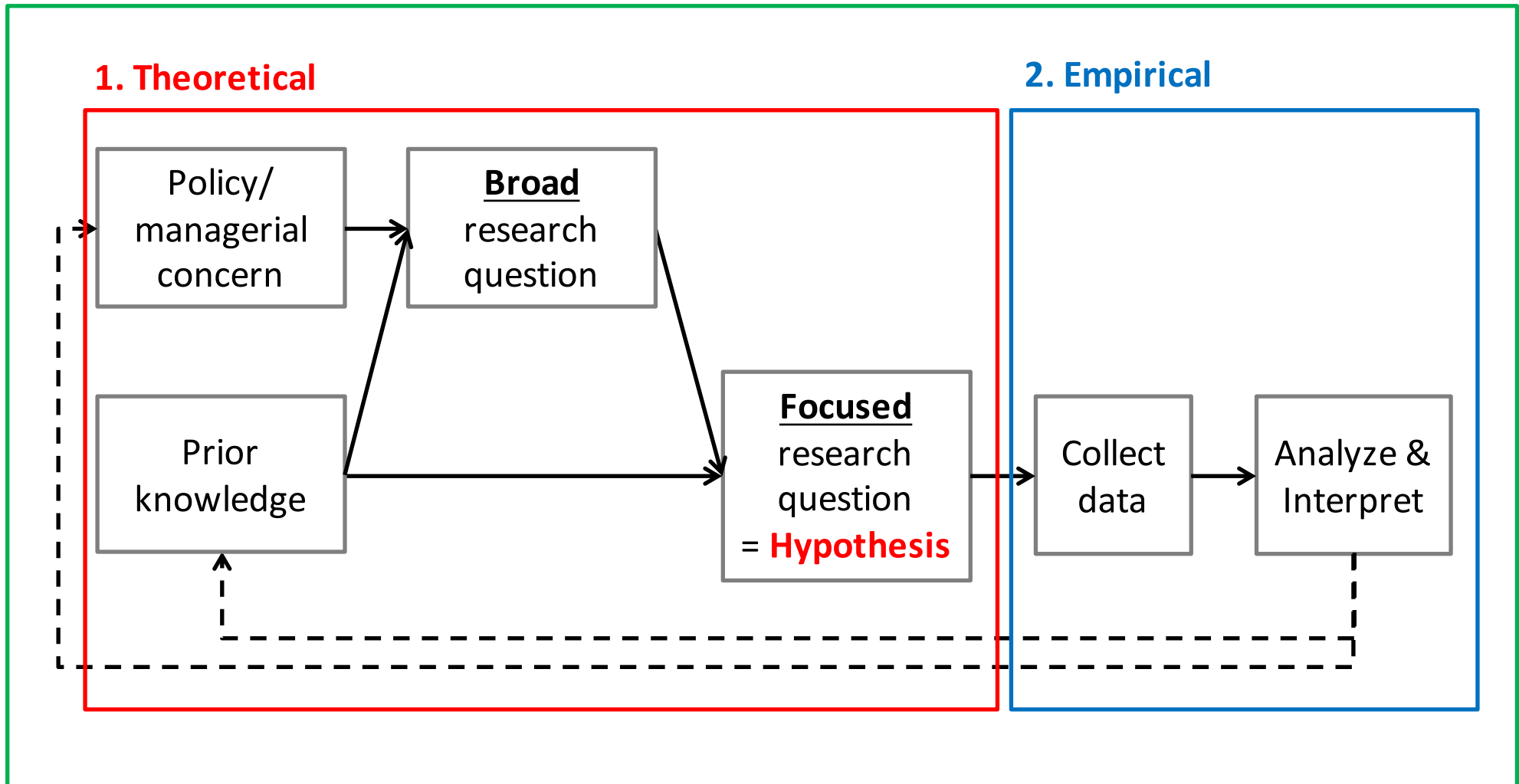
Today's Agenda

- Project outline (review)
- Exercise 1 & Feedback
- Next step

PROJECT OUTLINE

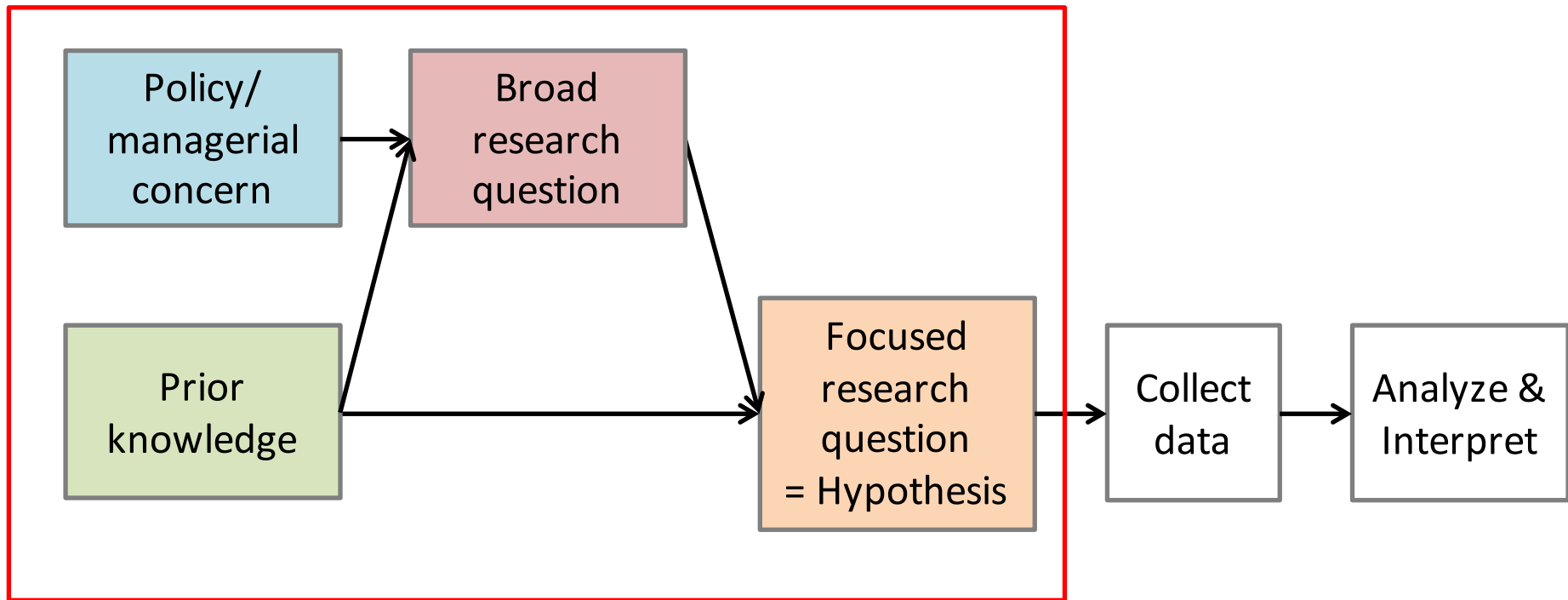
Process of Research

3. Theoretical + Empirical



Target of Project

“Theoretical + Empirical” with empirical part omitted.



Target of Project

1. Introduction

- General problem to be discussed
- Why the problem is worth studying

2. Theory & Hypothesis

- What is known & what is unknown
- Hypothesis to be tested
- Justification for the hypothesis

3. Method & Data

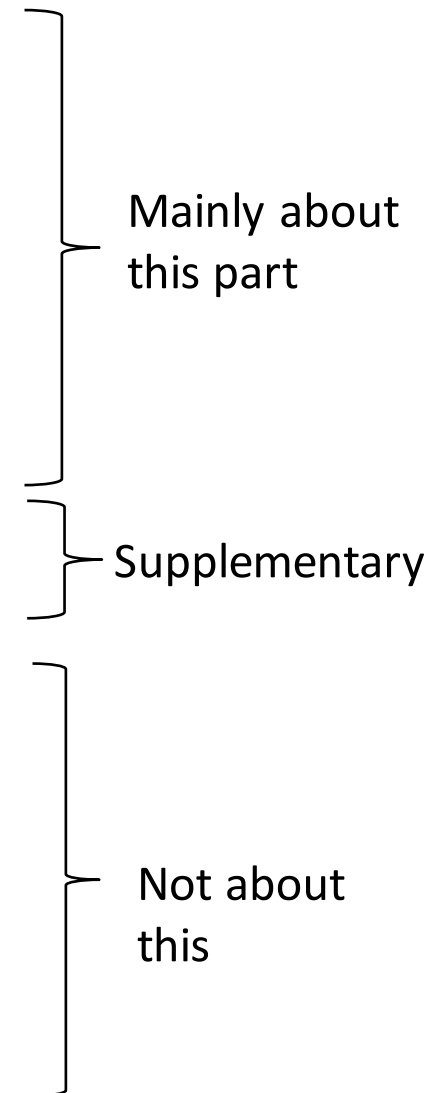
- Data & approach to test the hypothesis

4. Result

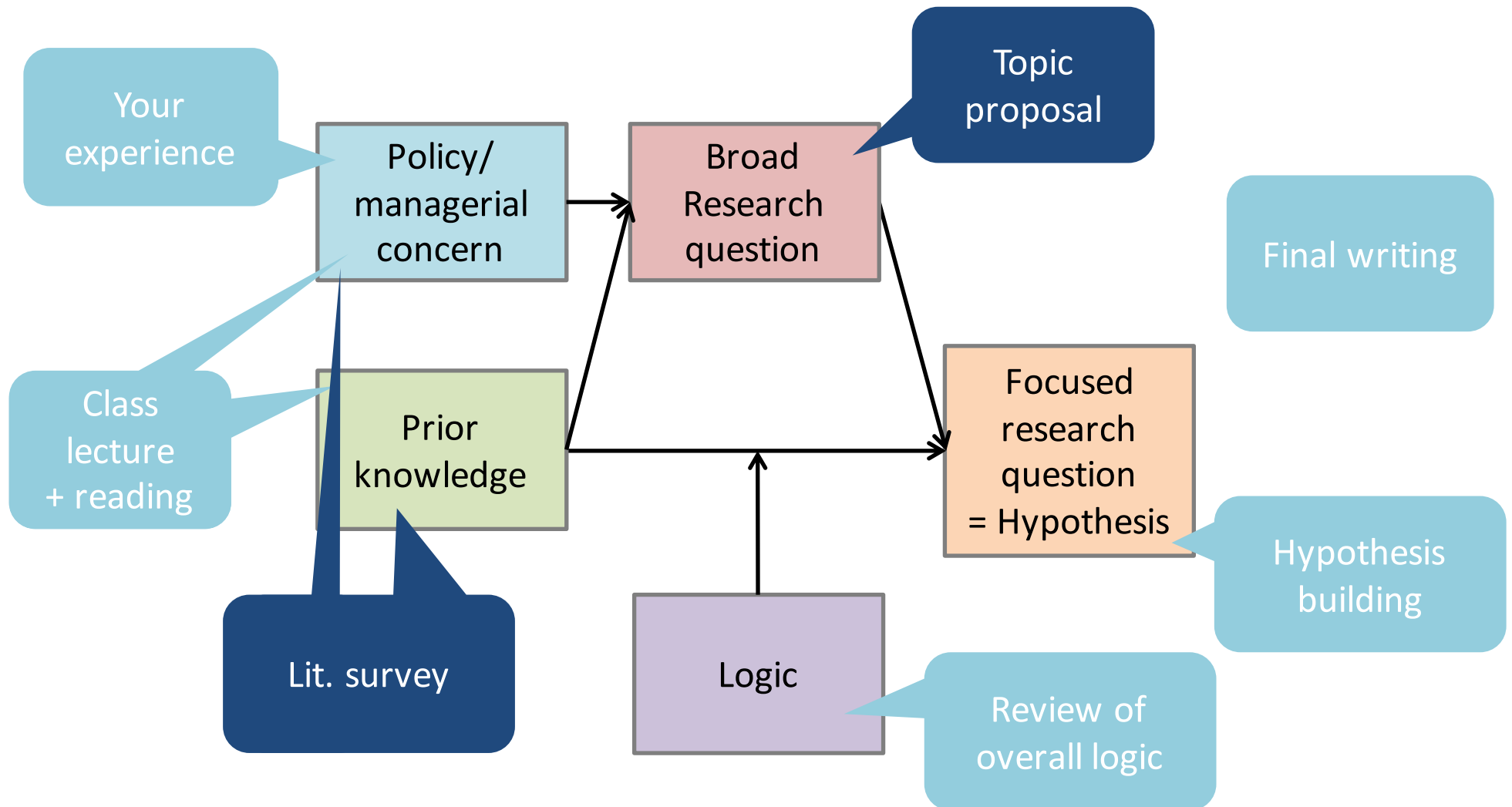
- If the hypothesis is supported or not

5. Conclusion & Implication

- Summary of results
- Implication: what the result means to policymakers
- Limitation
- Future research directions



Exercises



Final Output

1. Introduction
 - General problem to be discussed
 - Why the problem is worth studying
2. Theory & Hypothesis
 - What is known & what is unknown
 - Hypothesis to be tested
 - Justification for the hypothesis
3. Method & Data
 - Data & approach to test the hypothesis
4. Result
 - If the hypothesis is supported or not
5. Conclusion & Implication
 - Summary of results
 - Implication: what the result means to policymakers
 - Limitation
 - Future research directions

Broad research question

Policy/
managerial concern

Prior knowledge

Focused research question
= Hypothesis

Logic

WORKSHEET

0. Abstract

Relevance: [Explain the context of your study and its relevance.]

Broad Q: [State your broad question.]

Hypothesis: [Summarize your hypothesis.]

Action: [Explain why the results of your study is useful (how to put into action).]

1. Context

- XXXXXXXX
- XXXXXXXX
- XXXXXXXX

- Explain why the questions in the next page are worth answering.
- Convince the readers of the following two aspects:
 - Relevance: The question is important for the society; the question, if left unanswered, could do harm to the society; policymakers/managers are interested in it.
 - Action: answering the question can inform policymakers/managers of necessary actions to take.
- Cite references when needed.

2. Broad Research Question

- XXXXXXXX
- XXXXXXXX
- XXXXXXXX
- State your research question in an open-ended form.

3. Prior findings

- XXXXXXXX
- XXXXXXXX
- XXXXXXXX
- Explain what is already known about your broad question.
- Refer only to literature that is closely related to your hypothesis. In the previous page you may want to discuss literature that is broadly related to your project.
- Cite references.

4. Limitation of Prior Literature

- XXXXXXXX
- XXXXXXXX
- XXXXXXXX
- Explain what is UNKNOWN about your broad question. This gives you theoretical motivation. Your hypotheses should be about something unknown.

5. Hypothesis

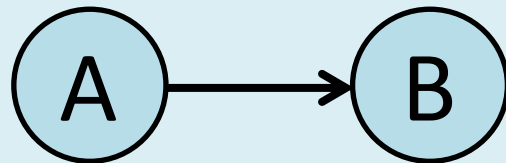
- XXXXXXXX
- XXXXXXXX

- Explain your key concepts:

- A:
- B:

- Use a diagram if helpful. Verbal explanation will be fine.

- e.g.,



- Justify the arrow in the diagram; explain why two (or more) concepts (A and B) should be related as you argue.

6. Empirical Approach

- Sample
 - Explain relevant attributes of your sample.
- Unit of Analysis
 - What will be the unit of sample, where your key variables are measured? It may be individual, team, organization, country, etc.
- Measures
 - Explain (1) the definition of each of the key concepts that appeared in your hypotheses (A,B, ...) and (2) how you measure it.
 - For example, secondary data (government statistics), survey, use of some device, etc. If you intend to use survey, give a few examples of questionnaire.

7. Bibliography

- XXXXXXXX
- XXXXXXXX
- XXXXXXXX

- List the articles you have referred to in previous pages.
- Include the following information for each article.
 - Author
 - Year of publication
 - Title of the article
 - Source of the article (journal name, issue, page, etc.)

Literature survey

EXERCISE 1

Next step

- Read one or a few articles
- Fill in the form
 1. Contexts
 2. Broad research questions
 3. Prior findings
 4. Limitation of prior literature
 5. Hypothesis (fine with rough ideas at this stage)
 7. Bibliography

Today's goal

- Decide the first one or a few paper to read
 - Find a few potentially interesting papers
 - Review-like article
 - Recent empirical study
- Consult with me
- Read the paper
- Start filling in the worksheet

Literature Search

- Web of Science is recommended
 - Access from GACOS:
 - <http://www.dl.itc.u-tokyo.ac.jp/gacos/>
 - Use “basic search” with some keywords
- How to narrow down the search?
 - Focus by discipline
 - Document type: article or review
 - Relevance to your question
 - Sort by Relevance
 - Search keywords in “Title”
 - Good journals (Journal Citation Report)
 - Recent papers
 - Frequently read (highly cited)
 - Citing-cited relationship

Typical journals related to Innovation Studies

- Science policy
 - Research policy
- Management
 - Organization science
 - Management science
 - Administrative Science Quarterly
 - Academy of management journal
 - Strategic management journal
- Economics
 - American Economic Review
 - Journal of Political Economy
- Sociology
 - American Sociological Review
 - American Journal of Sociology

NEXT WEEK

Next week

- Lecture on
 - Hypothesis building
 - Empirical design
- Feedback
 - For those who submitted worksheet by 9AM Monday

Submission of Worksheet

- This is NOT assignment.
- Due at 9 AM Dec 5 (Mon)
- Establish access to Dropbox
 - TA will send you an invitation.
- Save your assignment in Dropbox folder
 - ISE
 - ↳ 20161205
 - ↳ 20161205_37166044_Kento Hirayama.pptx

