

# Steps in the Research Process

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## Problem Solving Cycle

### Evaluation:

- improve, contrast check
- Meets requirements, ask if system improved

### Analysis:

- Look at current system
- How it works
- Specification for new system

### Design:

- Specify hww and swx
- Explain how system works
- Draw best plans
- create database queries/reports

### Test:

- check for errors
- see if it works
- go back to square 1

### Implementation:

- system installed, starts to work (direct, parallel, phased)

### Documentation:

- write how to doc.
- user manual, technical

1a. Identify a contentious problem (paradigms/logic on diagnosis & solution)

1b. Confirm feasibility & need to address issue using avail. data & lit.

2a. Develop full literature review (what is already known) about this prob.

2b. Considering context (technical, political, eco), develop a framework for answering your question.

3. Conduct Analysis

Continually revamping question, focus, & increasing depth and specificity of knowledge

4a. Write detailed outline setting up & solving prob.

4b. Develop interpretations & wider implications

5. Write/Edit for parsimony and clarity

# 1a. Conceptualization

- ◆ Identify a clear question or puzzle
  - Current challenge, no easy answers
  - long-term benefits
  - 2-4 Contentious Paradigms
- ◆ Define the scope appropriate to the output- feasibility tests.
- ◆ Conduct preliminary literature review + data inspection to pre-test
- ◆ \*Know your audience

# 1b. Literature and Data Review

- ◆ Concentric circles approach
- ◆ Identify schools of thought, paradigms
- ◆ Identify uniting and dividing issues
- ◆ Identify networks
- ◆ Begin to develop your own view in juxtaposition to these.
- ◆ Output= Proposal: Clear Feasible Research Question w/Paradigmatic A.s & Data to Resolve their Contentions



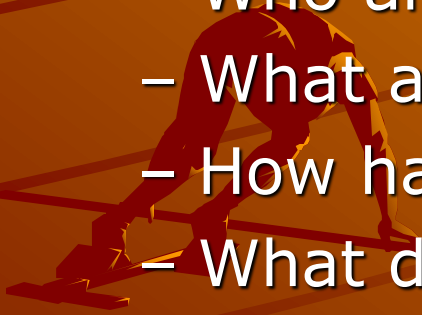


# 2a. Specialization and Accumulation

- ◆ Steady, cumulative specialization in a technical + geographical area
- ◆ Time management key- forest/trees
- ◆ Understand the historical and statistical context & map it out over time
  - Use stats and key events
- ◆ What factors/actors/methods have other authors used?
  - Why do they reach different conclusions?
  - Is there something new about current events that doesn't fit their analysis?
  - Are there seemingly unrelated topics/studies that could be brought in?

## 2b. Begin to Develop Your Framework

- ◆ Identify the major forces and key actors
  - and their effects on & relationships to issue (causal or interactive)
  - What explains current/past equilibria & what is nature & importance of threats?
  - Who are the winners and losers?
  - What are the catalysts and variables?
  - How have they changed over time?
  - What do you see for the future?
- ◆ Output: Analytical Framework that moves us beyond what is known; (Policy format or research format)



# 3a. Apply Your Framework

- ◆ Statistical, comparative, &/or case study-q. of feasibility again- but of methods
  - are there enough reliable sources from a variety of povs?
  - Are there adequate data? How are they presented?
  - Is there adequate time for this type of analysis?
  - How many cases do you have? Are they really comparable?
  - How many variables?
  - You should be refining your question.



## 3b. Plug and Chug

### ◆ Test Robustness of Your Analysis

- What does/will determine change in your issue area?
- What explains relative power?
- What explains what happens?
- What do you see as potential sources for changes in r/ships and/or returns and/or outcomes?
- What is your prediction?
- What would a skeptic say?

### ◆ Output: Probability Analysis

# 4. Recommendation

- ◆ What do you recommend as a solution & set of lessons for your focus of study?
  - Acknowledging limitations such as risk, unknowns, prediction error
- ◆ How does your study lead to a future agenda?
  - How does it fit within your future plans?
  - What q.s remain unanswered and how would you tackle them?
- ◆ Think carefully about how to explain your study to a knowledgeable audience.

1a. Financial Crisis- Causes of blindness (given obvious signals)

1b. Pattern across previous crises, other behaviours (eg gambling)

2. Psychological, evolutionary psychology, economic psychology lit.

3. Can this explanation hold up to events?

Continually revamping question, focus, & increasing depth and specificity of knowledge

4. Need to think about homo economicus differently

5. May deadline for conference, June for publication