RESEARCH QUESTIONS, PROPOSITIONS, AND HYPOTHESES

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Research Question

A simple question that highlights the focus or center of research.

Drives a literature review and may be refined as gaps are identified.

Examples
- What is the cause of crime?
- What is the relationship between poverty and crime?

All research has a research question, whether quantitative or qualitative, inductive or deductive.

If-Then Statements and Their Variants

Characteristics

- A simple, conditional statement used in deductive research that specifies the relationship between the independent and dependent variables.

- Social scientific relationships often incorporate variations in conditions as part of the hypothesis. These variations are phrased to imply linearity or probability. Used placed in the Introduction or near the end of the Literature Review.

Example:

If the level of poverty is high, then crime is high.

Examples of Social Scientific Variants

- As poverty increases, then crime increases.

- Crime increases as poverty increases.

- As the likelihood of poverty increases, the likelihood of crime increases.

Fisher Approach

Theoretical/conceptual propositions vs. statements about statistical significance

Usage

- A structure of used in dissertations and theses. Does not appear as much in published research.
- Usually placed in Methods section

Example

H_0: There is no relationship between poverty and crime.

H_1: There is a relationship between poverty and crime.

Issues

- Leads to too much attention on statistical significance
- Direction of the relationship ignored

Variations

Example #1

H_0: There is no positive relationship between poverty and crime.

H_1: There is a positive between poverty and crime.

Example #2

H_0: Many communities have violent crime rates over 1000.

H_1: Very few communities have violent crime rates over 1000.

Messy Language:
Propositions vs. Hypotheses?

Theoretical or conceptional statements that often come at the end of the literature review in deductive research

- Hypothesis

- Theoretical or conceptual hypothesis

- Proposition

Statistical statements that often come in the methodology section

- Hypothesis

- Statistical hypothesis

- Null and alternative hypothesis

Final Reflection: What to Do?

My Preferences

- Use social scientific variations implying linearity or probability

The Reality

- Advisors, departments, disciplines, and journals may have specific standards in place. Follow them.

- Propositions should be used in the abstract, introduction or literature review even if a Fisher-like statement is required within the methodology section.

- Always frame discussions of results to highlight both propositions and Fisher-like statements.