Framing Research Questions

2020-2021 GROW Workshop Series

Framing Research Questions

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Ontology

• Philosophical study that focuses on identifying and understanding the kinds of things that exist in our known world

• Addresses the question... what is reality?

• Ontology is the starting point of all research

• It is important for all researchers to be mindful of their ontological persuasion before engaging in research activities
Ontological Persuasions

**Realism**
- Naïve realism
- Structural realism
- Critical realism

**Relativism**
- Bounded relativism
- Relativism
WHAT IS TRUTH?
The Blind Men and the Elephant
Epistemology

• Branch of philosophy that investigates the origin, nature, methods, and limits of human knowledge and understanding

• Used to differentiate between true (adequate) knowledge and false (inadequate) knowledge

• Key epistemological questions:
  • What is knowledge?
  • What is the nature of knowledge?
  • Is our knowledge valid?
Why Framing is Important?

• Framing a clear research question is a critical part of the research design process

Theoretical and Empirical Antecedents

Research Question

Research Design
What Are Research Questions?

• A research question helps researchers define what they hope to learn when they conduct a study.

• Research questions establish which part of the (previously identified) problem a study will try to solve for the reader/audience.

• Developing research questions is an essential element of both quantitative and qualitative research designs.
Research Question Origins

Information Gaps

Studies

Literature

Experience
Types of Research Questions (General)

• **Descriptive** – studies designed to simply describe what is going on or what exists

• **Relational** – studies designed to look at the relationships between two or more variables

• **Causal** – studies designed to determine whether one or more variables cause or affect one or more outcome variables
Research Question Hierarchy

General Question

Implied Question

Implied Question

Implied Question

Implied Question

Implied Question
Types of Research Questions (Implied)

• Descriptive – Existence
• Descriptive – Classification
• Descriptive – Comparative
• Relational – Composition
• Relational – Simple Interaction

• Causality
• Causality – Comparative
• Causality – Comparative Interaction
Framing Quantitative Research Questions

PICOT
Framing Qualitative Research Questions

1. If I could discover the meaning of one person’s lived experience, I would ask __________________ (individual) about __________________.

2. If I could discover the shared lived experiences of one quality or phenomenon in others, I would want to know about ____________.

3. If I could experience a different culture by living/observing it, I would choose to experience ________________.

4. If I could discover what occurred and was experienced in a single lived event, that event would be ________________.

5. If I could discover a theory for a single phenomenon of living as shared by others, I would choose to discover the theory of ______.
What Makes a Good Research Question?

- Feasible (F)
- Interesting (I)
- Novel (N)
- Ethical (E)
- Relevant (R)
- Manageable (M)
- Appropriate (A)
- Publishable (P)
- Systematic (S)
Elements of a Good Research Question

- Specific
- Measurable
- Attainable
- Relevant
- Time Based
# Addressing Problems and Challenges

<table>
<thead>
<tr>
<th>Problem</th>
<th>Solution</th>
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<tbody>
<tr>
<td>Too broad</td>
<td>Include fewer variables, narrow the question</td>
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<tr>
<td>Not enough participants</td>
<td>Expand inclusion criteria, modify exclusion criteria, add other recruitment sources</td>
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<tr>
<td>Requires methodology you do not have training on</td>
<td>Collaborate with others, seek educational opportunities</td>
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<tr>
<td>Too expensive</td>
<td>Use fewer participants, low/no cost measures, fewer follow-ups or data collection periods</td>
</tr>
<tr>
<td>Not interesting/relevant</td>
<td>Consult with mentors, peers, re-engage with the literature</td>
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Research Question Writing Considerations

• Reference the population to whom your results will be generalized
• Make research questions as specific as possible
• Avoid using words or terms that do not substantively add to the meaning of the stated question
• Focus on what will be studied – avoid discussing implications
• Name the variables/constructs in the order they occur or will be measured in your study design
• Avoid using words such as significant and prove in research questions
Check with Your Advisor/Chair

Every discipline is slightly different and doctoral committees may have specific recommendations.