

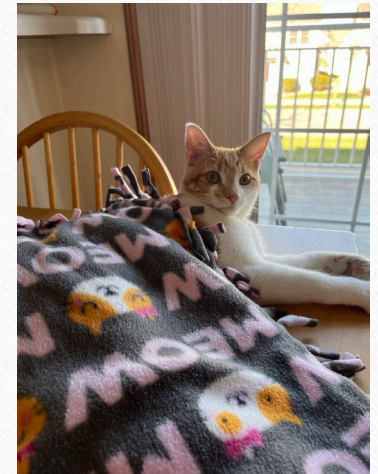
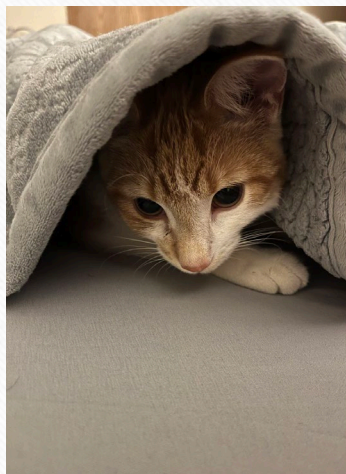
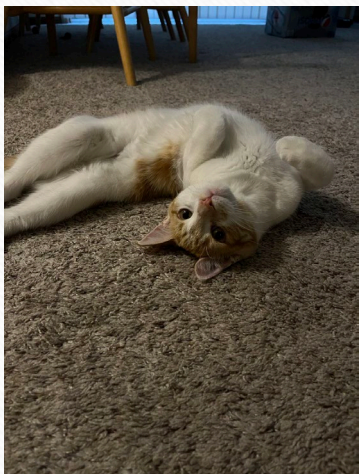
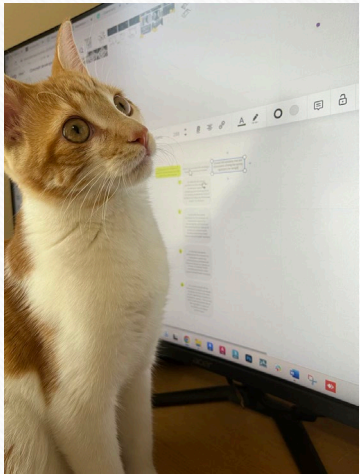
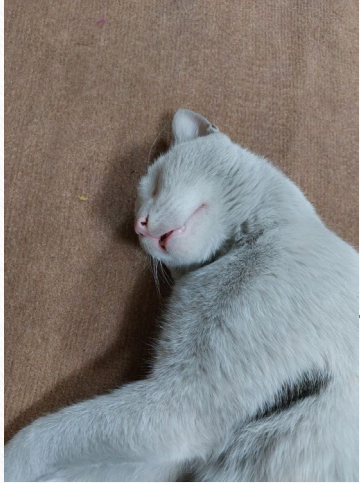
The Craft of Research

Week 2: Problem Statements and IRBs

Heliya Ahmadi



Daily Dose of My Cats



Outline

- Problem statements
- IRBs
- Reminders



How to Ask Questions



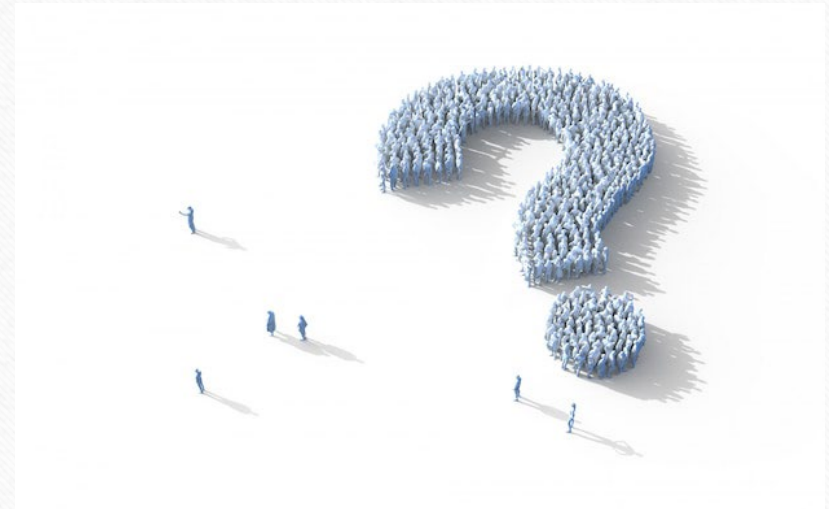
Finding a Good Research Problem

- Ask for help
 - Who would want an answer to your question?
 - What new questions might an answer bring up?
- Look for problems as you read
 - Contradictions, inconsistencies, incomplete explanations?
 - Future directions
- Look at your own conclusions
 - Have you answered a question you have not yet asked?
 - Have you solved a problem you have not yet posed?



Identifying Significance of Questions

- *So* what? Why should people care? Why is your problem important?
- What will be lost if you *don't* answer your question?
- How will *not* answering your question keep us from understanding something else better than we do?



Asking Questions to Find Answers

- How do you discover questions?
- Avoid questions if:
 - Answers are settled fact that you could look up (i.e., *who, what, when, where*)
 - Answers would be speculative
 - Answers are dead ends
- Combine smaller questions into larger ones

*How have politicians used the Alamo story?
How have the storytellers' motives changed?
Whose purposes does each story serve?*

*How and why have users of the Alamo story
given the event a mythical quality?*



Identifying Question/Problem Significance

Step 1: Name Your Topic

Step 2: Add an Indirect Question

Step 3: Answer *So What?* by Motivating Your Question



Identifying Question/Problem Significance

Step 1: Name Your Topic

A. I am studying/working on _____...

- Fill in the blank with your topic and verb derived nouns (e.g., causes, disappearances, beliefs, influence, reasoning, etc.) when applicable

Step 2: Add an Indirect Question

Step 3: Answer *So What?* by Motivating Your Question



Identifying Question/Problem Significance

Step 1: Name Your Topic

Step 2: Add an Indirect Question

A. I am studying/working on _____...

B. ...because I want to find out who/what/when/where/whether/
why/which/how _____...

- Indicates what you do not know or understand about the topic and why you are pursuing the topic

Step 3: Answer *So What?* by Motivating Your Question

Identifying Question/Problem Significance

Step 1: Name Your Topic

Step 2: Add an Indirect Question

Step 3: Answer *So What?* by Motivating Your Question

A. I am studying/working on _____...

B. ...because I want to find out who/what/when/where/whether/
why/which/how _____...

C. ...**in order to help my reader understand how/why/whether** _____.

- This is the portion of the sentence that your readers should care about

Activity 1: Mini-Problem Statement

- Work with your research team for the next 5-10 minutes in creating the following statement:

A. Topic: I am studying/working on _____...

B. Question: ...because I want to find out what/why/how (etc.) _____...

C. Significance: ...in order to help my reader understand _____.





Practical Problems & Research Problems



Academic Research Problems

Practical Problems

- Caused by a condition in the world that makes us unhappy
- Costs us
- **Solved by doing something** that eliminates the cause of (or ameliorates) the problem/costs

Conceptual Problems

- Arises when we do not understand something about the world
- **Solved by by answering a question** that helps us understand the world better





Conceptual Problems with Practical Solutions

1 Topic:

2 Question:

3 Significance:

4 Potential Practical Application:



Conceptual Problems with Practical Solutions

¹**Topic:** I am studying how 19th century versions of the Alamo story differ...

²**Question:** ...because I want to find out how politicians used stories of great events to shape public opinion...

³**Significance:** ...in order to help readers understand how politicians use popular culture to advance their political goals...

⁴**Potential Practical Application:** ...so that readers *might* better protect themselves from unscrupulous politicians.

Activity 2: Mini-Problem Statement Addition

- Work with your research team for the next 5-10 minutes to amend the following statement:

A. Topic: I am studying/working on _____...

B. Question: ...because I want to find out what/why/how _____...

C. Significance: ...in order to help my reader understand _____...

D. Practical Application: ...so that readers might _____.

Problem Area Paragraph Milestone

- Components to generally cover:
 - Introduces reader to space/scope of the problem you are addressing (i.e., Topic)
 - Why are you doing this research? (i.e., Question)
 - Why should the reader care (i.e., Significance)
 - What the solution could be used for (i.e., Application)
- Milestone completion dates/weeks will be different for all groups



Institutional Review Boards



What is the IRB and what does it do?

- Institutional Review Board
- Reviews human subjects research projects
- Ensures protection of all people involved in the research
 - Participants, researchers, primary investigators
- Can take months to receive full reviews and approval
 - Can't work on any of the research prior to IRB approval



Primary Goals of the IRB

1. Protection of the **rights and welfare of human subjects** who voluntarily give their time, energy, and personal information to better society through research
2. Maintain **institutional compliance** with federal requirements



IRB Considerations During Review

1. Risk to subjects minimized
2. Risk reasonable in relation to benefits
3. Subject selection equitable
4. Maintenance of confidentiality and subject privacy
5. Informed consent obtained
6. Informed consent documented
7. Additional safeguards to protect the vulnerable
8. Adequate provisions for monitoring data collection



Types of IRB Reviews

1. Exempt



2. Expedited Non-Exempt



3. Full-Board Non-Exempt





Exempt IRB Reviews

- Certain types of projects deemed “exempt” from most regulatory requirements
- Shorter IRB form
- Quicker (usually) review process
- Researchers are expected to honor basic ethical considerations
 - i.e., voluntary informed consent, protecting confidentiality, etc.



Exempt IRB Reviews

Exemption allowable if all of the following conditions are met:

- A. Research presents little to no risk of harm to participants
- B. Confidentiality of participants will be protected when results are disseminated
- C. The research does not include prisoners
- D. All research procedure fit into one or more of six regulatory exemptions



Common Exempt IRB Examples

Anonymous survey of adults

Interviews or focus groups w/ adults using non-sensitive or overly personal topics

Research in established/accepted educational settings involving normal educational practice

Research using de-identified existing data

Taste tests of food products of wholesome foods w/out additives



Non-Exempt IRB Reviews: Expedited

- Review and approval by an IRB chair and Co-Chair/Vice Chair

Allowable if all of the following conditions are met:

- A. Minimal risk (commensurate with routine physical/psychological exams or daily life)
- B. All research procedures fit into one or more of nine regulatory categories
- C. Confidentiality of participants protected when results are disseminated
- D. The Chair(s) have the appropriate disciplinary expertise to evaluate the research



Common Expedited IRB Examples

Many
social/behavioral
research methods not
involving ethical issues

Use of private and
identifiable existing
data

Use of non-invasive,
FDA cleared sensors,
or non-invasive
specimen collection

Mild to moderate
exercise,
height/weight
measures

Blood draws under
certain amounts for
certain situations





Non-Exempt IRB Reviews: Full-Board Review

- Reviewed by the full board during a meeting
- Reviews the following:
 - A. Research projects not eligible for *exempt* or *expedited* review
 - B. Research projects that the Chair(s), at their discretion, refer for board review
 - C. Adverse events, unanticipated problems, cases of noncompliance, and similar issues
 - D. IRB policies



Common Full-Board Review IRB Examples

Research involving
vulnerable populations

Collection of highly
sensitive or personal
information

Invasive or strenuous
procedures, x-rays, or
some blood draws

Research on drugs,
food
additives/products,
dietary supplements, or
medical devices



Reminders

