

# The Craft of Research

---

Week 2: Problem Statements and IRBs

# 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

---

<sup>1</sup>Topic:

<sup>2</sup>Question:

<sup>3</sup>Significance:

<sup>4</sup>Potential Practical Application:

# Conceptual Problems with Practical Solutions

---

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

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

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

<sup>4</sup>**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

---