# Quantitative Data Collection Methods
## -CASA Session 5-

# Session 5 Overview

- Session 5 learning outcomes
- Overview of Qualitative and Quantitative Paradigms
- Quantitative Research & Data Collection Methods
  - Observation
  - Rubrics
  - Existing data
- BREAK
- Surveys
- Session Assessment/Mid-course check-in
- For Next Session…

# Areas from Session 4 to Review:

Do you have any remaining questions/concerns from content covered in
Session 4- Qualitative Data Collection Methods?
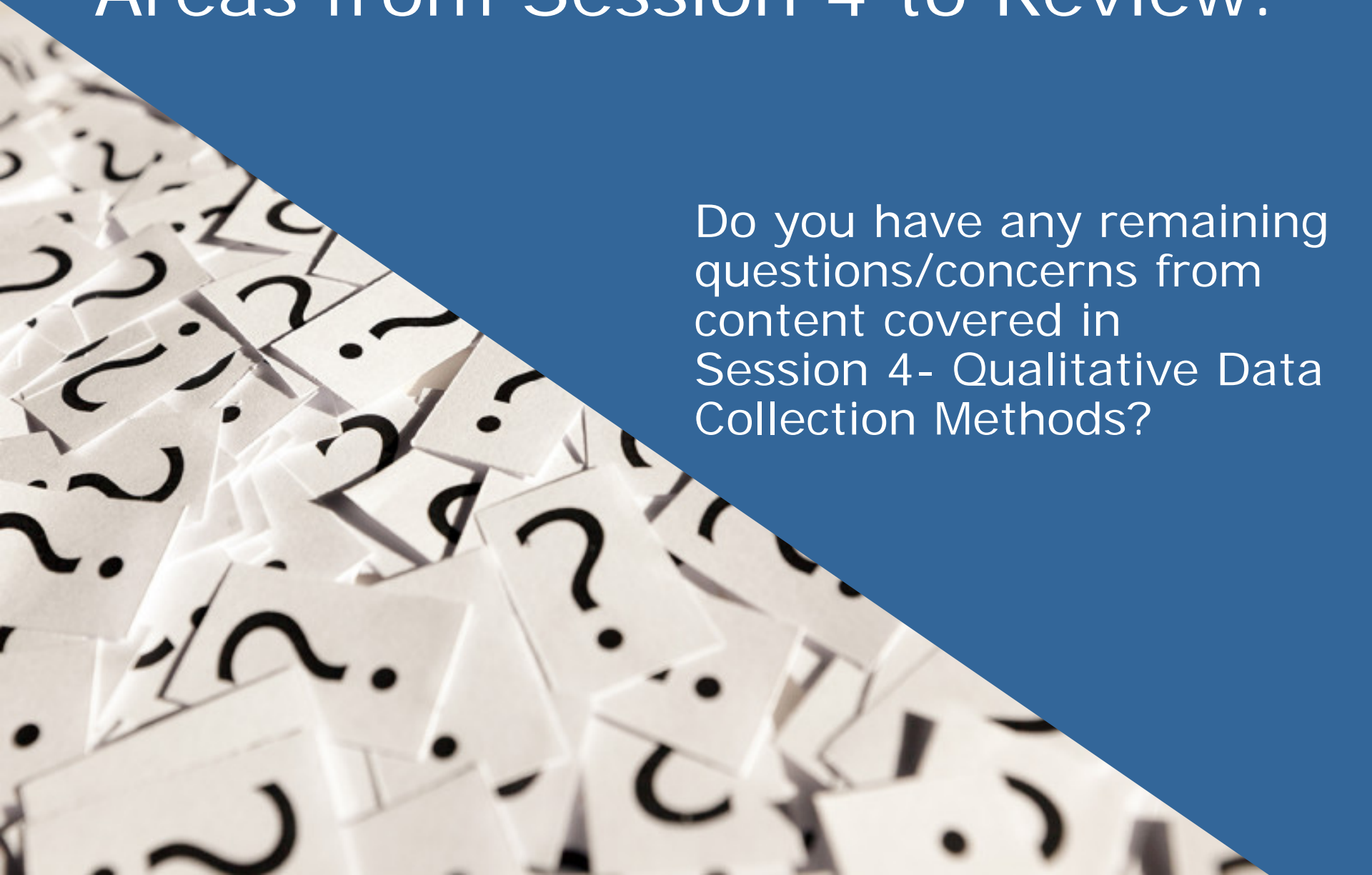
# Assessment Plan Peer Feedback

**At this point in the curriculum, you should have the following assessment plan sections fully drafted OR partially outlined/notated:**

**Assessment Purpose**
- ☐ Assessment Plan Design
- ☑ Background and Purpose
- ☑ Assessment Question(s)
- ☑ Context and Stakeholders

**Methods and Implementation**
- ☐ Assessment Method
- ☑ Resources
- ☑ Implementation and Design

**Planned Analysis and Reporting**
- ☐ Planned Analysis
- ☑ Plan for Reporting
- ☐ Implications for Improvement

## 1) Switch Assessment Plans with a partner
1) Rate each section using the assessment plan rubric.
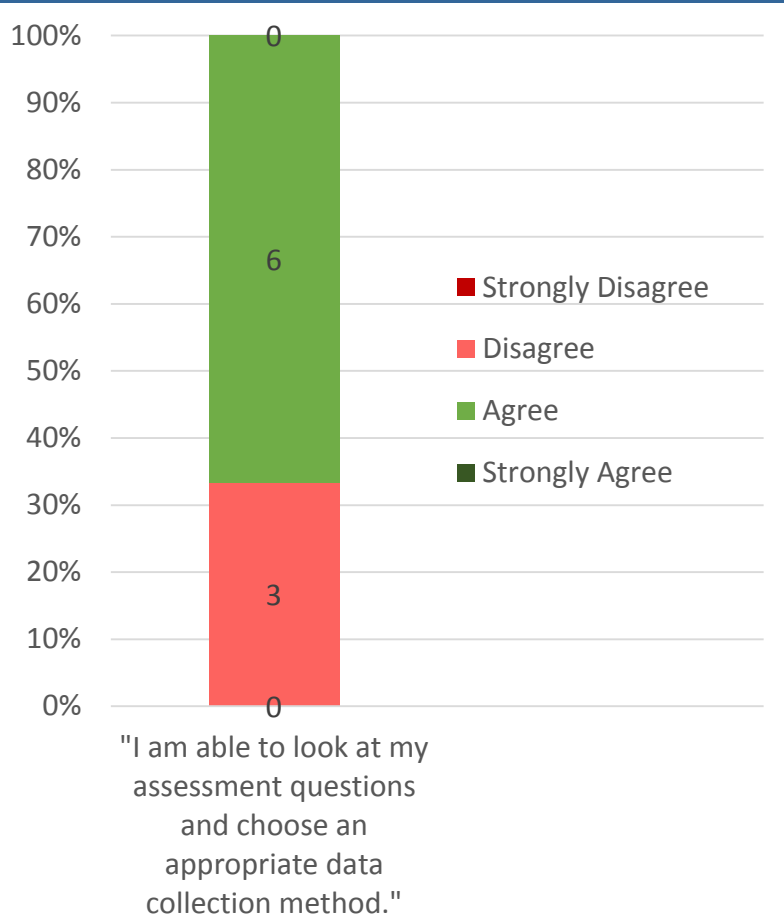2) Provide written notes/suggestions in space provided.

### THEN...

## 2) Return Assessment Plans and Feedback Sheet
1) Discuss your ratings with your partner.
2) Identify ways each of you can improve these sections.
3) Authors make notes for themselves regarding next steps.

# Where we are, where we are going…

## Confidence Barometer



Chart: "I am able to look at my assessment questions and choose an appropriate data collection method."

- Strongly Disagree: 0
- Disagree: 3
- Agree: 6
- Strongly Agree: 0

## Today's Learning Outcomes

After today, you should be able to:

- Understand the difference between quantitative and qualitative approaches

- Identify different possible quantitative assessment methods

- Understand the logistics involved in various quantitative assessment methods

- Select (if applicable) a quantitative data collection method that appropriately addresses your assessment question(s)

# The Assessment Cycle
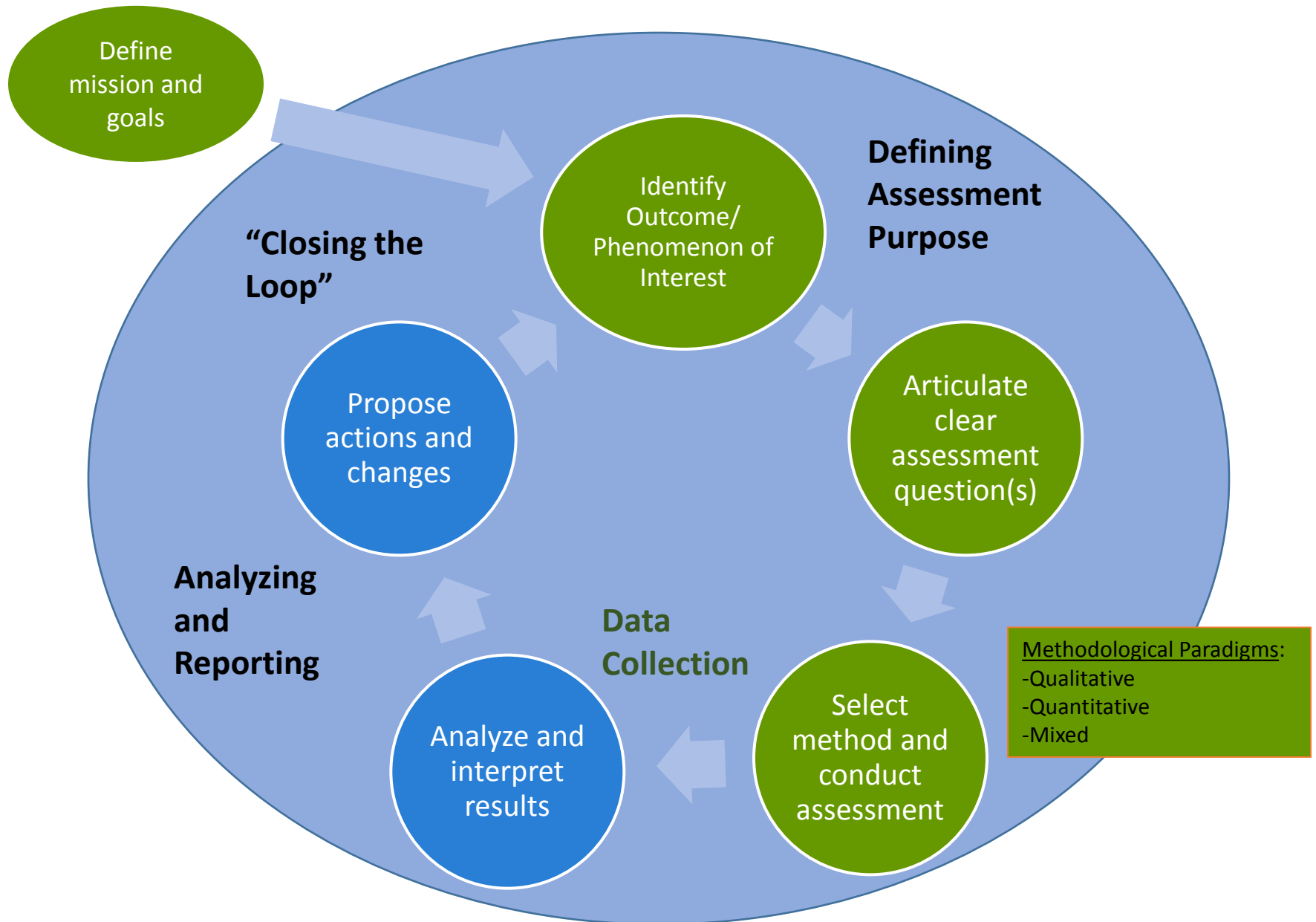
# Continuum of methods
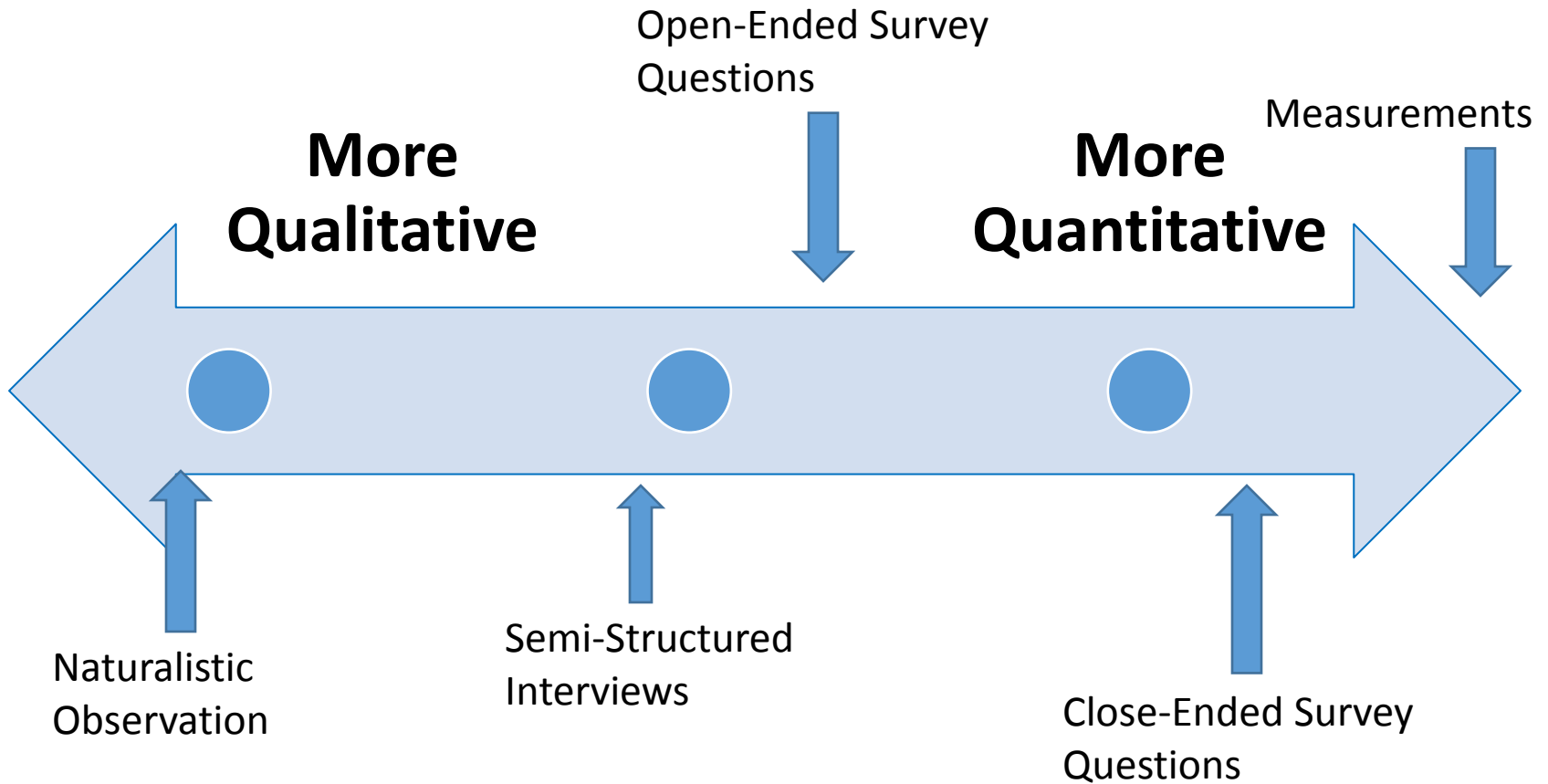
# How Do I Approach assessment?

| Qualitative Methods | Quantitative Methods |
|---|---|
| **Sources of Data** | |
| Interviews, focus groups, observations, etc. | Surveys, counts, pre-existing data, student records |
| **Focus** | |
| On meanings and details of experiences (Depth) | On generalizable experiences that represents a population (Breadth) |
| **What you Report** | |
| Themes, Quotes | Numbers, charts, graphs, trends (longitudinal data) |
| **Characteristics** | |
| Open-ended questions | Close-ended questions, Measurement of specific variables |
| Fewer participants (resource intensive per participant) | Large number of respondents (with fewer resources, sometimes) |
| Distance to research: Closer to context | Distance to research: further from context |

# Quantitative Data Collection Methods



Observation



Surveys
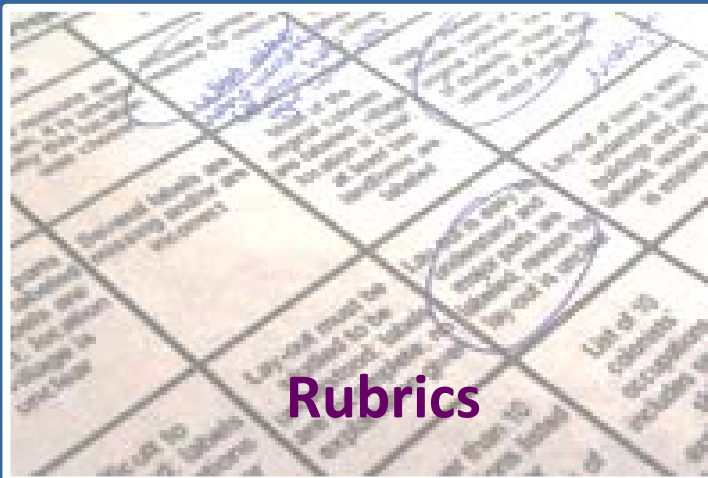


Rubrics



Existing Data

# Observation

***What is it: Researcher observes ongoing behavior of a person, group, or phenomenon.***

- Naturalistic/Non-participant Observation: Researcher is not a part of the action
  - Pro: Can measure what behavior is really like
  - Con: Don't know reason behind behaviors

- Participant Observation: Researcher becomes a member of the group, a part of the action.
  - Pro: Allows access to information (the why behind behavior)
  - Con: Can lose objectivity, participation influences what you see and measure.

Naturalistic       ⟵———————⟶       Participant

# Observation (cont.)

- **How to do Observation (quantitatively):**

    - Keep a list of who enters/uses your office or attends a program
        - Uses:
            - Schedule of when the most frequent use occurs
            - % of attendance by students of different characteristics (depending on what is collected)
    - Observe how often you have to replace an item, refill a jar, etc.
        - Uses:
            - Learn about student behavior, needs
            - Help determine questions to ask
    - Note which entrance students use, or the way they access the services (e.g. email, online, phone)
        - Uses:
            - Set up information boards, office/desk locations, etc

# Rubrics

- ***What is it: A scoring tool that articulates gradations of quality for a the object/evidence being assessed (e.g., documents, actions, etc.)***
  - Allows multiple raters to apply consistent and objective evaluations.
  - Provides guidelines for participant responses/progress.

- ***Challenges***
  - Articulating the gradations can be challenging.
  - Development of rubrics can be complex and time-consuming.
  - Defining the correct set of criteria to define performance can be difficult.

# Rubrics (cont.)

- **_How to Use Rubrics (quantitatively)_**

  - Determine which dimensions were well executed by the individual or group and which dimensions are in need of improvement
    - Student Organization Event Plans
  - Results can be compiled and disseminated to the individual or for department review
    - Assessment Curricula "Assessment Plan" Rubric
  - Numeric results can be aggregated to understand participant outcomes, and to assess program effectiveness.

# Existing Data

- Data Audit

- Departmental Data
  - Usage
  - Program Evaluations/Surveys
  - Annual Evaluations
  - Program Review

- Institutional Data
  - Student Surveys
  - Demographic Information (Registrar)

# SAIRO Data

- Session 5 learning outcomes
- Overview of Qualitative and Quantitative Paradigms
- Quantitative Research & Data Collection Methods
  - Observation
  - Rubrics
  - Existing data

# •BREAK

- Surveys
- Session Assessment/Mid-course check-in
- For Next Session…

# Surveys

- Any gathering of information from an individual or group of individuals using a pre-specified set of questions and responses

- Formal:
  - Digital survey administered after an event
  - Pen and paper comment cards at a front desk

- Informal:
  - Hands raised in response to questions at an event
  - Index cards collected after an event

# Types of Survey Questions

- Closed-ended questions (Structured questions)
  - Dichotomous Questions (yes/ no)
  - One-response Questions (Mark one)
    - e.g., satisfaction questions, frequency (how often), quality
    - e.g., major, year in school
  - Multiple responses (check all that apply)
    - e.g., race demographics
    - e.g., classes at the John Wooden Center

- Open-ended text questions (Please describe…)
  - To think about:
    - Character limits (on digital surveys)
    - Time allowed to respond (with paper and digital surveys)

# Articulating Clear Survey Questions

- Be **SPECIFIC**
- Focus on **ONE concept** at a time
- Use **simple** language
  - General audience, like the newspaper (not NY Times)
  - DUOA (don't use obscure acronyms!)
- **No leading** questions
- Ask questions that apply to everyone, or include skip patterns
- Avoid language that can be interpreted in different ways
- Be mindful of **response options** (mutually exclusive, exhaustive)

# Turning Assessment Questions into Survey Questions

- Assessment Question:  How satisfied are UCLA undergraduates with the extent that they feel free to express their political beliefs on campus?
  - Survey questions:
    - "I feel free to express my political beliefs on campus." (agreement scale)
    - "There are safe spaces on campus to have political debate."
      (agreement scale)
    - "How often do you express your political beliefs on campus?"
      (time scale)

# Examples of Scales

- **Agreement**
  - Strongly agree, Agree, Neither agree nor disagree, Disagree, Strongly disagree

- **Frequency (no set time)**
  - Always, Often, Occasionally, Rarely, Never

- **Frequency (based on a time frame)**
  - More than 5 times, 4-5 times, 2-3 times, Once, Never

- **Helpfulness**
  - Extremely helpful, Very helpful, Helpful, Slightly helpful, Not at all helpful

# Response Options for Close-ended Questions

**Mutually exclusive choices for a close-ended survey question**

When did you learn English?
A. English is my native language
B. Before I was 6 years old
C. When I was 6 to 10 years old
D. When I was 11 to 15 years old
E. After turning 16 years old

How many hours did you spend reading this week?
A. Less than 1 hour
B. 1-3 hours
C. 2-4 hours
D. 3-5 hours
E. Forever

**NOT mutually exclusive**

# Looking Out for Confusing Survey Questions

**We need your help!**

**Some of these questions have problems but we can't figure them out. Now that you know how to create specific and concise questions, can you help us refine them?**

Scale: (Strongly Disagree, Disagree, Neutral, Agree, Strongly Agree, NA)

1. I used the JWC (John Wooden Center) to work out and to make friends.
2. I am mostly very happy with the JWC services.
3. JWC is sufficient for me to be able to have physical wellness as a student.
4. I am satisfied with the way I am able to take many classes at the JWC but not happy with the times they are offered.
5. I use the JWC every day.
6. Participation in JWC fitness classes has improved my physical fitness.

# Putting Survey Questions Together

- Instrument Design
  - Order and flow of questions
  - Group questions similar response options together (Matrix)
  - Stay focused on the goal of assessment
    - *Remember: need to know vs. nice to know*

- Tips
  - Ask important questions at the beginning*
  - Ask sensitive information at the end* (demographics)
  - Keep survey short (15-20 minutes)
  - Reduce the number of clicks/pages on online surveys
  - Aesthetics
  - Use similar scales

*there may be exceptions to the rule!*

# Survey Planning

- Who is your targeted sample?
  - All incoming **students**? All **personnel** in Student Affairs? Those who **use** services?
  - Response rate

- Recruitment
  - Email
  - Mail
  - Flyers/ Web advertising (link)
  - Phone/ word of mouth
  - Comment cards

- Logistics
  - Publicity
  - Incentives
  - Budget
  - Online or Paper

# Survey Administration

- Survey administration timeline:
  - What needs to be done
  - Who's doing them
  - When do they need to be done
- Preparing survey for administration
  - Programming (submitting survey to Baseline)
  - Printing/Photocopying
- Survey communications
  - Mailing, handing out, emailing
    - Who should the survey come from
  - Reminders
- Response rates

# Example of Survey Timeline

| survey project timetable | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Pre-survey (3–4 weeks)** | Month 1 | | | | Month 2 | | | | Month 3 | | | |
| | wk1 | wk2 | wk3 | wk4 | wk1 | wk2 | wk3 | wk4 | wk1 | wk2 | wk3 | wk4 |
| Initial survey discussions | ■ | | | | | | | | | | | |
| Review the survey | ■ | | | | | | | | | | | |
| Seek feedback and finalize survey | | ■ | | | | | | | | | | |
| Determine logistics | | | ■ | | | | | | | | | |
| Finalize and program or format survey/ Print survey | | | | ■ | | | | | | | | |
| Execute pre-survey communications | | | | ■ | | | | | | | | |
| **Survey (2–4 weeks)** | | | | | | | | | | | | |
| Survey in field / Monitor response rate, send out reminders | | | | | ■ | ■ | ■ | ■ | | | | |
| Data entry (if not online) | | | | | | | ■ | ■ | | | | |
| **Post-survey (3–4 weeks)** | | | | | | | | | | | | |
| Data analysis and reports prepared | | | | | | | | | ■ | ■ | ■ | |
| Findings shared with senior management team | | | | | | | | | | | | ■ |

| Methodological Paradigm | | Method | Instrument | Planning Resources on SAIRO's Website |
|---|---|---|---|---|
| Qualitative | Quantitative | | | |
| ☑ | | **Document Analysis** | N/A | • Data Audit WS |
| ☑ | | **Interview: Focus-Group** | Focus-group protocol | • Interview Planning Checklist<br>• Key Aspects of Informed Consent and Communication Documents<br>• Conducting Focus Groups |
| ☑ | | **Interview: Individual** | Interview protocol | • Asking Effective Qualitative Questions<br>• Interview Planning Checklist |
| ☑ | ☑ | **Observation** | Observation check-list/ protocol | <Talk to Danielle Acheampong in SAIRO> |
| | ☑ | **Rubrics** | Rubric | <Talk to Allison for resources from other places> |
| | ☑ | **Existing Data** | N/A | • Data Audit WS |
| | ☑ | **Survey** | Survey instrument | • Writing Effective Survey Questions<br>• Matching Survey Scales to Desired Outcomes<br>• Common Pitfalls to Good Survey Design<br>• Survey Planning Checklist |

# Group Activity

On your mobile phone/tablet/laptop….

# Go to: srs.campuslabs.com

## Name: <your name>
## Connect ID: 8284

By the way… anyone with a Campus Labs/Baseline login can use this tool to set up their own on-the-go survey.

# Session 5 Assessment/Mid-Course Evaluation

# For next session:

- *Refine "Assessment Method," "Resources," and "Implementation and Design" subsections of Assessment Plan*

- *Those planning to use Quantitative methods, draft an instrument for your assessment*
  - *for review and assistance come to Office Hours*
    - February 13, 2017 @ 12:00 PM - 2:00 PM in Murphy Hall 2206
    - March 2, 2017 @ 10:00 AM - 12:00 PM  SAC Conference Rm 1
    - or contact Danielle

# Progress on the final product:

**By next month's session, you should have the following assessment plan sections fully drafted OR partially outlined/notated:**

**Assessment Purpose**
- ☐ Assessment Plan Design
- ☑ Background and Purpose
- ☑ Assessment Question(s)
- ☑ Context and Stakeholders

**Methods and Implementation**
- ☑ Assessment Method
- ☑ Resources
- ☑ Implementation and Design
  - ☑ Pilot instrument

**Planned Analysis and Reporting**
- ☐ Planned Analysis
- ☑ Plan for Reporting
- ☐ Implications for Improvement

**Remember to bring a hard copy of these sections!**

FYI: Next session, you will meet your SAIRO mentor. Be prepared to explain your assessment project to her.