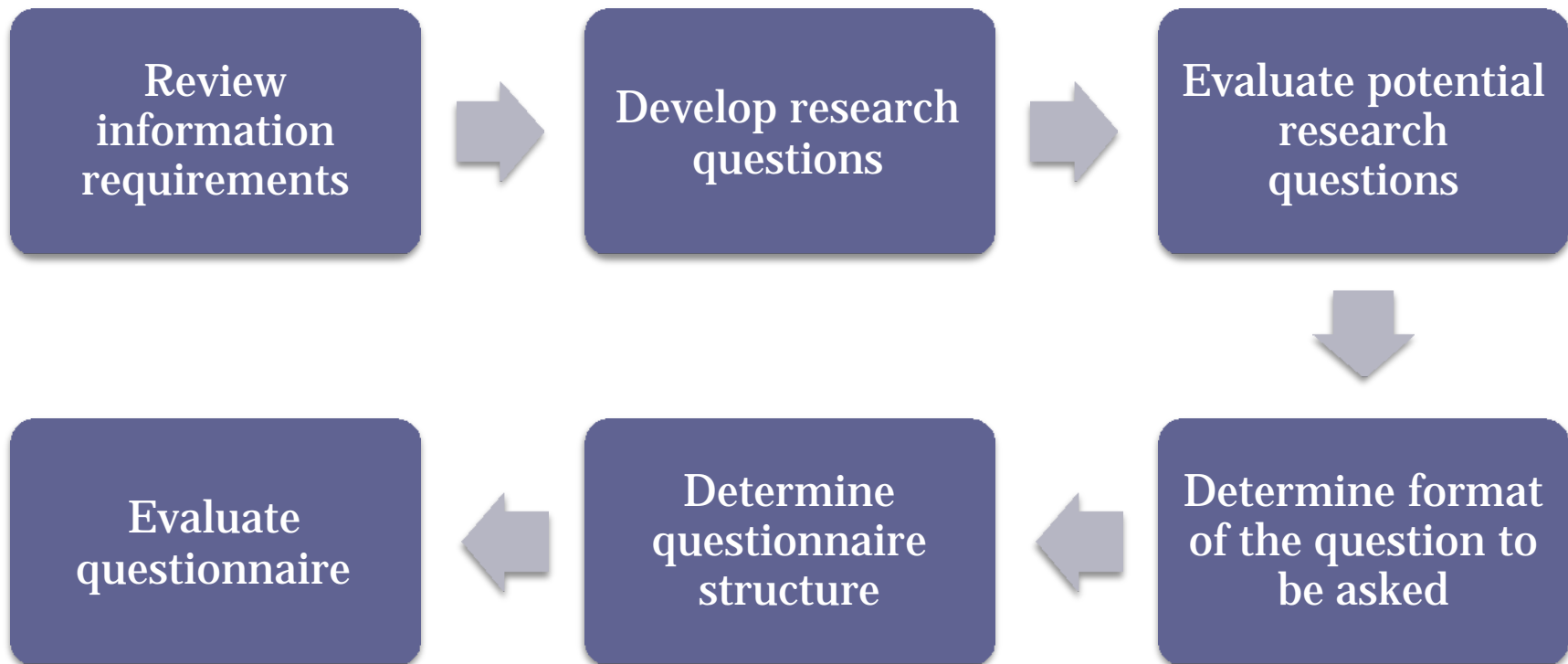


# Constructing a Survey Instrument

**Labor & Workplace Studies 188-3  
and Chicano Studies 191-5  
Applied Research Methods in the Labor  
Community  
Winter Quarter 2013  
Tuesday and Thursday - 4:30 – 6:20PM  
PAB 1749**

# Constructing a Survey Instrument





# Constructing a Survey Instrument

- **Search literature for similar surveys**
  - Identify issues with questions or re-validate prior surveys
- **Selection of questions is crucial**
  - Make sure questions measure what their intended purpose
  - Closed answers should be clear
  - Questions must be appropriate for the population of interest and the length
- **The number of questions to include in the survey depends on**
  - What you need to know
  - How many questions are needed for adequate measurement
  - The amount of time available



# Structure of Questionnaire

- Start with non-threatening questions
- Focus on the 'need' to know
- Each question should have an explicit rationale
  - Why is it being asked?
  - What will be done with the information?
- Determine section based on purpose of interview
  - Sections should flow logically.
  - The questionnaire should begin with an introduction and end with a closing.
- List issues you want to know under each section



## Structure of Questionnaire, cont.

- **Never start with an open-ended question.**
- **Historical sequence of events should be followed in chronological order from earliest to latest.**
- **Ask about one topic at a time.**
- **Use filter or contingency questions as needed.**



# Question Format

- **Structured**
  - Every participants is asked the same question the same way in the same order.
  - Closed-ended questions are used.
- **Unstructured**
  - No participants are asked identical questions and the questions permit a multitude of answers.
  - Open-ended questions are used.



## Types of Response Formats, cont.

- **Nominal**

- Which of the following best describes your race or ethnicity?

- (1) Black/African American

- (2) White

- (3) American Indian or Alaskan Native

- (4) Asian or Pacific Islander

- (5) Latino or Hispanic

- **Dichotomous**

- Do you live with your parents?

- (1) Yes

- (5) No

# Types of Response Formats, cont.

- **Continuous**
  - How many people, including yourself, live in your household?
- **Open-ended**
  - Why did you decide to drop out of the smoking cessation program?
    - ◆ Record up to 3 responses
    - ◆ Precodes
      - 1 Didn't have time
      - 2 Couldn't get to the program
      - 3 Was discouraged
      - 4 Didn't like the facilitator
      - 5 Decided I didn't want to
      - 6 Started smoking again



# Types of Response Formats

- **Ordinal**

- In general, would you say your health is?
  - ◆ Excellent, Very Good, Good, Fair, or Poor

- **Interval-level**

- On a scale of 1 to 5 where 5 is strongly agree (SA) and 1 is strongly disagree (SD), how would you rate the following statement.

- ◆ It is okay to smoke in your house?

SA

SD

5

4

3

2

1

9 Don't know



# Types of Response Formats

- **Rankings**

- Of the following 3 services, which one is most important? Which one is the second-most important? And which one is the third most important?

- ◆ (1) Weekly glass and plastic recycling
- ◆ (2) Monthly large appliance pick-up
- ◆ (3) Hazardous waste disposal days

Most Important

Second-most  
Important

Third-most  
Important



# Guidelines for Asking Survey Questions

- Ask purposeful questions
- Ask concrete questions
  - *Poor*: How would you describe your health?
  - *Better*: In the past 3 months, how would you describe your health?
- Use conventional language
  - *Poor*: Place of residence?
    - ◆ Los Angeles
    - ◆ CA
    - ◆ 123 Westwood Blvd.
  - *Better*: What is the name of the city where you currently live?

# Guidelines for Asking Survey Questions, cont.

- **Provide a frame of reference**
  - *Poor:* Overall, the performance of the principal is... excellent, good, average or poor?
  - *Better:* Compared with other principals you are familiar with, the performance of the principal is... excellent, good, average or poor?
- **Avoid negative words and double negatives**
  - *Poor:* Do you disagree that mathematics teachers should not be required to be observed by their supervisor if they have a master's degree?
  - *Better:* *Should mathematics teachers with a master's degree still be observed by their supervisors.*

# Guidelines for Asking Survey Questions, cont.

- **Avoid jargon and technical terms**
  - *Poor:* Should a summative evaluation of Head Start be commissioned by the U.S. government.
  - *Better:* Should the U.S. government commission a history of Head Start to review its activities and accomplishments?
- **Avoid double-barreled questions**
  - *Poor:* Do you think we should continue to use tax money to support arts and sports programs?
  - *Better:* Do you think we should continue to use tax money to support the following:
    - ◆ (a) Arts (1 yes 5 no 9 dk)
    - (b) Sports (1 yes 5 no 9 dk)



## Guidelines for Asking Survey Questions, cont.

- **Minimize the risk of bias**
  - **Word choice**
    - ◆ Difference between “welfare” and “assistance to the poor”
  - **Response alternatives do not reflect the full range of possible answers**
    - ◆ “What do you like about your community, such as the parks and the schools?”



## Example 1: Answers must not overlap

(1) How old are you?

- a) 0-10
- b) 10-20
- c) 20-30
- d) 30-40
- e) 40-60
- f) 60+



## Example 2: Avoid Leading Questions

- *Do you feel optometrists, who are not medical doctors, should be allowed to perform surgery, such as laser vision procedures?*
- *Do you feel optometrists, doctors who specialize in the eye and optics, should have licenses expanded to provide laser vision correction?*





## Example 3: Sensitive Questions

- **What is your annual income?**
- **Which of these categories includes your total annual income?**
  - **More than \$30,000-**
  - **\$15,000-\$29,999-**
  - **\$8,000-\$14,999-**
  - **\$4,000-\$7,999-**
  - **\$2,000-\$3,999-**
  - **Under \$2,000**



# Validity, Reliability and Responsiveness

- **Validity:** Whether you are measuring what you intended to measure.
  - **Face Validity:** The extent to which your questionnaire is measuring what it appears to be measuring
  - **Content Validity:** The extent to which items on the questionnaire are representative of the domain under study.
  - **Construct Validity:** The extent to which an instrument measure the construct of trait under study.
  - **Criterion Validity:** The extent to which the questionnaire is measuring similar to a 'gold' standard, another measure that has been used and accepted in the field



## Validity, Reliability and Responsiveness

- **Internal reliability:** questions measuring the same construct are correlated to each other and not to other constructs.
- **Test-retest Reliability:** if you were to do the survey the same way, under the same conditions you would get the same results.
- **Responsiveness:** the questions can detect change.



# Designing Questions

- **Make questions clear.**
- **Keep questions short.**
- **Remember the purpose of the research.**
- **Do not ask double barreled questions.**
- **Avoid baised words or terms.**
- **Avoid leading questions.**
- **Do not use questions that ask for highly detailed information.**



## Additional recommendations

- Have the questions reviewed by experts.
- Have the questions reviewed by potential respondents.
- Adopt or adapt questions that have been used successfully in other surveys.



# Evaluating the Questionnaire

- **Why should people participate?**
  - Clarify the purpose of the survey
  - Be direct about your intentions
- **Does the order of the questions make sense?**
- **Are the questions clear?**
- **Do the questions measure your intended purpose?**



## Other Golden Rules

- Be respectful of people's time.
- Assure respondents about confidentiality of their responses and how the data will be used.
- If requested, send respondents a copy of the final results.
- Thank respondent for their participation in you study.
- Always pretest questionnaire.