# Questionnaire Development

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## Outlines

- **1.Development**
- 2.Designing questions and responses
- **3.Pre-survey evaluation**



- Why we want to measure?
- What we want to measure?
- Who we want to measure?
- How we want to measure?

- Objective?
  - -???
- Outcomes?
  - -???
- Target?
  - -???
- $\rightarrow$  Content.

# Content



## Content

- Focus on the study objectives. [Why?]
- Focus on the outcomes. [What?]
- Sources:
  - Expert opinion.
  - Focus groups.
  - Qualitative studies.
  - Literature theories & research findings.

- How we want to measure?
  - Types of questionnaires.
  - Methods of administration.
  - Types of questions and response options.

# Types of Questionnaires





#### 1.Self-administered

#### 2. Interviewer-administered



# Methods of administration



# Methods of administration

#### **1.Self-administered:**

- Pen-and-paper direct, mail.
- Computerized Google Form, Survey Monkey, pdf Form.

#### 2. Interviewer-administered

- In-person interview
- Phone

# Types of questions



## Questions

- Types:
  - OpenClosed



#### Open

#### • Open ended questions.

- Fill in the blank self-administered.
- Short answer, elaborate interviewer-administered.

# Closed

#### • Choices:

- Dichotomous (Yes/No)
- Multiple choice
- Checklist
- Ranking of response options
- Rating
- Likert Scale
- Visual analog scale

# Designing questions and responses



## **Design Objectives**

- To ensure quality response, 5 general objectives (McDonald et al., 2003):
  - 1.Consistent meaning.
  - 2.Expected response.
  - 3. Ability to response.
  - 4. Willingness to response.
  - 5. Same type & mode of administration.

## **Consistent meaning**

- Meaning as understood by respondent, other respondent and researcher itself should be similar.
- Simple, clear, straight-forward words.
- Language level suitable for respondent.
- No "OR" multiple concepts.
- No ambiguous term "kadang-kadang" vs "jarangjarang". Specify frequency.
- Overlap. "w/in 1 year" vs "w/in 2 years"?

### **Expected response**

- Be specific.
- Open-ended question may suffer.
- "When?" could mean age, date, year, period of time etc.

## Ability to response

- Ask something that respondent can easily recall and answer.
- "How many cigarette have you smoked for the past 10 years?"

# Willingness to response

- Ask something that respondent can provide answer honestly.
- Respondent may withhold the information or answer dishonestly. Socially desirable answer.
- "Have you ever robbed anyone? Yes/No"
- "I never ever lie to anyone? Yes/No"

# Same types, modes and methods of administration

- The way interviewer ask question should be standard.
- The way respondents answer the questionnaire is similar self-administered vs interviewer-administered; pen-paper vs mail vs online.
- The form of presentation of questionnaire similar for all format, method.

# **Pre-survey evaluation**



#### **Pre-survey evaluation**

• Evaluation by (McDonald et al., 2003):

1.Review by other researchers and experts.

- 2.Focus group discussion (FGD).
- 3.Cognitive debriefing.
- 4. Field pretest.

# 1. Review by researchers and experts.

- Covers the most important and extensive part of content evidence of validity.
- <u>Next lecture on Validity of Measurement Tools</u>.

# 2. Focus group discussion (FGD).

- Consists of representative sample of target population.
- Focused on general feedback on comprehension of key/problematic items – to ensure consistent meaning.
- Problematic items → consider suggestions from the respondents improve wording.

# 3. Cognitive debriefing.

- Individual interview.
- More on how the respondent understand and answer questions.
- Understanding ask him to rephrase and explain the questions.
- Answer how they arrive at the answers.
- More intensive than FGD.

# 4. Field Pretest / pilot study

- Field testing the <u>complete</u> questionnaire
- Representative sample
- Evaluate:
  - the form:
    - Wording understanding, grammar, syntax
    - Formatting well edited and professional looking (don't use Comic Sans!)
    - Flow logical and organized

# 4. Field Pretest / pilot study

#### • Evaluate (cont.):

- the administration process:
  - Length
  - Timing
  - Interviewer/Rater training & reliability
  - Flow of questionnaire administration
  - Logistic
- the data entry preparation:
  - Coding
  - Data entry procedure
  - Frequency of item non-response

#### References

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