

# Questionnaire Development

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# Outlines

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

# Development

# Development

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

# Development

- **Objective?**
    - ???
  - **Outcomes?**
    - ???
  - **Target?**
    - ???
- **Content.**

# Content

# Content

- **Focus on the study objectives. [Why?]**
- **Focus on the outcomes. [What?]**
- **Focus on target respondents. [Who?]**
- **Sources for content:**
  - Expert opinion.
  - Focus groups.
  - Qualitative studies.
  - Literature – theories & research findings.

# Development

- **How to measure the outcomes?**
  - Types of questionnaire.
  - Methods of administration.
  - Types of question and response options.



# Types of Questionnaire

# Types

- 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 question

# Questions

- **Types:**
  - Open
  - Closed

# Open

- **Fill in the blank – self-administered.**
- **Short answer, elaborate – interviewer-administered.**
- **Allows many possible responses.**
- **e.g. demography, opinion etc.**

# Open

Name: \_\_\_\_\_

Date of birth: \_\_ / \_\_ / \_\_\_\_

Number of children: \_\_\_\_

Occupation (please specify): \_\_\_\_\_

For the past 1 week, on average, how long did you spend for exercise per day?  
\_\_\_\_\_ minutes.

What is your opinion on SST? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



# Closed

- **Fixed, predetermined responses.**
- **Limit respondent to the choices.**
- **Easy for data entry, analysis, interpretation.**
- **Give clue to respondent as to how to answer.**
- **Must include ALL possible responses.**

# Closed

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

# Closed

**Have you ever attended Dr Arifin's lecture before? Yes/No**

**Gender:** Male [ ] Female [ ] Not sure? [ ]

**Food categories for past 1 week:**

Grains [ ] Poultry [ ] Vegetable [ ] Fruits [ ]

**Rank your favourite food from 1 (most preferred) to 5 (least preferred):**

Nasi Ayam [ ] Nasi Goreng [ ] Nasi dagang [ ] Nasi Kerabu [ ] Nasi Kandar [ ]

**Please rate your experience using HotelBooking.com.my:**

[1] [2] [3] [4] [5] [6] [7]

**I enjoy Dr Arifin's lecture.**

Strongly Disagree [ ] Disagree [ ] Neutral [ ] Agree [ ] Strongly Agree [ ]

**Please rate your boredom level right now:**

|-----|  
Not bored at all Smartphone is my best friend :-)

# 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 “jarang-jarang”. 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 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.**

## 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 complete 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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