

Questionnaire Basics

Dr Wan Nor Arifin

Unit of Biostatistics and Research Methodology,
Universiti Sains Malaysia.
wnarifin@usm.my



Wan Nor Arifin, 2018. Questionnaire Basics by Wan Nor Arifin is licensed under the Creative Commons Attribution-ShareAlike 4.0 International License. To view a copy of this license, visit <http://creativecommons.org/licenses/by-sa/4.0/>.



Outlines

- 1. Introduction**
- 2. Development**
- 3. Validity**
- 4. Other issues**

Introduction

Introduction

- **Questionnaire?**
- **Definition:**

“a structured document that is used to collect information from respondents about themselves or others” (McDonald et. al., 2003)

Introduction

- **Basically a measurement tool.**
- **Questionnaire based research – just like any research using measurement (blood pressure, lab investigations, imaging etc). One of tool to measure outcome.**
- **Questionnaire is everywhere! GCS, BDI, personality.**
- **Must choose a suitable (measure your outcome) & good (valid & reliable) questionnaire.**

Introduction

- **Options:**

- Existing questionnaire in target language → use.
- Existing questionnaire in foreign language → translate.
- Non-existent → develop.

Introduction

- **Why use questionnaire?**
 - Information required?
 - Time?
 - Cost?
 - Simple to conduct?
 - Standardization in obtaining information?

Development

Development

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

Development

- **Why, What & Who we want to measure?**
 - Study objectives.
 - To determine knowledge on leptospirosis.
 - To determine attitude towards fogging.
 - The outcomes.
 - Knowledge on leptospirosis
 - Attitude on fogging practice by KKM.
 - The target respondents.
 - Among villagers, residents.
 - Develop suitable content.

Development

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

Types of Questionnaires

Types

- 1. Self-administered**
- 2. Interviewer-administered**

Self-administered

- **Simple information, sensitive information.**
- **Economical, practical.**
- **No interviewer bias.**
- **But, respondent must be able to read!**

Interviewer-administered

- **Complex information, e.g. requires explanation.**
- **Can involve illiterate respondents.**
- **Requires standardization among interviewer, training – ensure standard way of asking & correct response.**
- **Costly.**
- **Time consuming.**

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:**
 - Open
 - Closed

Open

- **Allows many possible responses.**
- **Factual data – demography.**

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

I am diabetic: 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 love ayam percik.

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

Please rate your boredom level right now:

|-----|
I'm fine, thank you I'm falling asleep

Validity

Validity

- **Accuracy, extend to which questionnaire measure what it is supposed to measure (Fletcher, Fletcher and Wagner, 1996)**
- **Validity is “the degree to which all the accumulated evidence supports the intended interpretation of test scores for the proposed purpose” (AERA, APA & NCME, 1999).**
- **[Next lecture]**

Other issues

Existing questionnaire

- **In target language e.g. Malay?**
- **If not in Malay, i.e. English, translation?**
- **Same target population? Doctors vs Patients?**
- **Type? Mode and method of administration?**
- **Measure outcome of interest?**
- **Validity evidence?**

References

American Educational Research Association, American Psychological Association, & National Council on Measurement in Education (1999). Standards for educational and psychological testing. Washington DC: American Educational Research Association.

Fletcher, R. H., Fletcher, S. W., & Wagner, E. H. (1996). Clinical epidemiology: the essentials (3rd ed.). Maryland: Williams & Wilkins.

McDonald, J. A., Burnett, N., Corodano, V. G., & Johnson, R. L. (2003). Questionnaire design. Georgia: Division of Reproductive Health.