

# Questionnaire Translation

Dr Wan Nor Arifin

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



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# Outlines

**1.Objectives**

**2.Equivalence**

**3.Stages**

# Translation

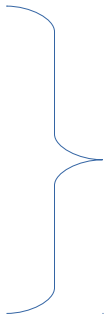
# Translation

- **Why we want to measure? Objectives.**
- **What we want to measure? Outcomes.**
- **Who we want to measure? Respondents.**
- **How we want to measure? Questionnaires & Questions.**

# Equivalence

# Equivalence

- **Equivalence between Original & Translated versions.**
- **5 key aspects of equivalence (Streiner & Norman, 2008):**

1. Conceptual
  2. Item
  3. Semantic
  4. Operational
  5. Measurement
- Content
- 

# Equivalence

Aspects	Description	Western	Malaysian	Adaptation
Conceptual	Do responders from two different populations and cultures understand the concept similarly?	Canning is child abuse.	Canning is way to teach children to behave properly.	Change to suitable items representing abuse in local culture.
Item	Whether the items are relevant and acceptable in target population.	Turning on heater. Use of furnace. Manual transmission for car. An apple a day, keeps doctor away.	Items not relevant in local setting.	Drop the items. Find/create suitable items conceptually.
Semantic	Concerns similarity in meaning attached to an item.	I get butterflies in my stomach.	? Saya ada rama-rama dalam perut ?	Saya rasa gelisah/cemas.

# Equivalence

Aspects	Description	Western	Malaysian	Adaptation
Operational	Equivalence of operational aspect of the measure, i.e. format of the measure, the instructions and mode of administration.	Direct question? Self-administered?	Indirect, politely phrased question? Interviewer guided?	Change the operational aspect of the questionnaire.
Measurement Equivalent	Concerns equivalence of psychometric properties of the measure, i.e. validity and reliability.	Factor analysis Reliability.	—	—



# Stages

# Stages

- **7 stages (adapted from Beaton et al., 2000; McDonald, et al., 2003; Wild et al., 2005):**
  1. Forward Translation
  2. Reconciliation
  3. Backward Translation
  4. Harmonization
  5. Pre-survey evaluation
  6. Finalization
  7. Full validation survey

# Stage 1

## 1. Forward translation

Original (e.g. English) → Target Language (Malay)

TWO translators

→ 1 medical & 1 non-medical/naive

→ Both native speakers of target language

Perform independent translations

# Stage 2

## 2. Reconciliation

Review the two translations

Translation panel:

- The study team
- The two forward translators
- Linguist

Reconcile → Combine into one translated version.

# Stage 3

## 3. Backward Translation

Target (e.g. Malay) → Original (English)

TWO translators

→ 1 medical & 1 non-medical/naive

→ Both competent speakers of original language

Perform independent translations

# Stage 4

## 4. Harmonization

Compare back-translated versions with the original →  
discrepancies → point to difficult words/concepts

Translation panel

Revisions to forward translations

Consider equivalence aspects

Produce a preliminary translated version

# Stage 5

## 5. Pre-survey Evaluation

Same steps to the pre-survey evaluation of a newly developed questionnaire.

Comments from experts & a sample of target respondents

→ uncover some small mistakes in the previous stages

→ from views of those not in panel & respondents

Cognitive debriefing & pre-test → Response process evidence of validity

# Stage 6

## 5. Finalization

Translation panel review comments from pre-survey  
Make relevant revisions  
Fine tune the questionnaire  
Produce final questionnaire → may need further validation



# Stage 7

## 7. Full Validation Survey

Involves a large sample – few hundreds

Mainly evidence of internal structure and relationship to other variables

# References

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