



# Language translation & cultural adaptation of self-report instruments

*Elva Arredondo, Ph.D.*

*San Diego State University*

*Institute for Behavioral and Community Health*

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# Outline

- Importance of measurement
- Cultural competence
- Translation
  - Equivalence
- Qualitative methods
  - Focus groups
  - Cognitive interviews
- Final comments



# Poor measures

- Threaten data reliability and validity
  - Mask true relationships
  - Poor psychometric properties
  - Do not capture the intended construct
- May lead to missing data



# Cultural competence

- Cultural Competence
  - “..set of congruent behaviors, attitudes, and policies that come together in a system, agency, or among professionals and enables that system, agency, or those professionals to work effectively in cross-cultural situations”

Cross et al., 1989



# Cultural Orientation Continuum





# Culturally Competent Assessment

- Take into consideration:
  - The measure's origin
  - Limitations of a measure involving the target community
  - The reliability/validity of measures
  - Diversity in conceptual meanings

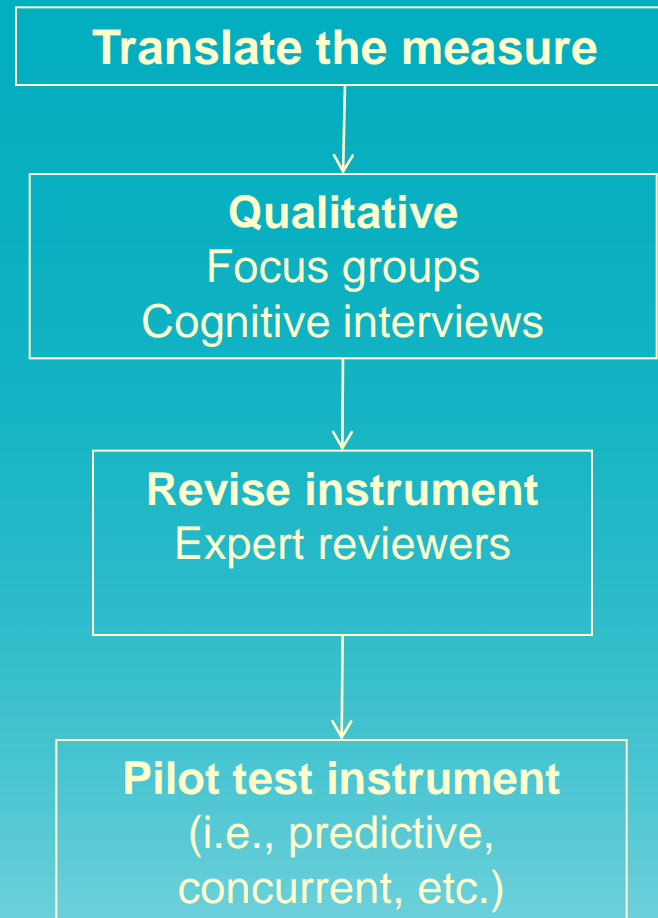


# Culturally Competent Assessment

- Problem:
  - Most measures have been developed in majority populations
  - Translation  $\neq$  conceptual equivalence
- Goal:
  - Culturally sensitive assessment techniques, procedures & instruments
  - Valid & reliable assessment techniques, procedures & instruments
  - Linguistic and conceptual equivalence



# Process







# Common forms of translation

- One-way translation (not recommended)
  - Strengths: simple, economic
  - Weaknesses: over-reliance on one individual which allows misinterpretations in meaning. Leads to lower reliability, lower bivariate scores
- Back-translation
  - Compare versions & reconcile inconsistencies
  - Strengths: more thorough
  - Weaknesses: world views of translators may not represent that of the target population



# Common forms of translation

- Translation by committee
  - Two different translations:
    - Translators come to a consensus
    - Committee rates different versions
  - Strengths: Straight forward
  - Weaknesses: world views of translators may not represent that of the target population



Does that mean we should not translate surveys from one language to another?



# Suggestions for translating measures

- “Expert” reviewers from target group
- Appropriate literacy level (3rd grade level)
- Avoid metaphors and colloquialisms
- Short & simple (fewer than 16 words)
- Active vs. passive voice
- Use inclusive words



# Qualitative methods: improve measures

- Allows us to assess the conceptual equivalence of measures across different communities
- Useful for constructing culturally appropriate measures
- Allows participants to respond in a way that accurately represents their point of view, ideas, thoughts, beliefs, etc.



# Types of qualitative methods

Strengths and limitations

Focus groups

vs.

Cognitive interviews



# Focus groups characteristics

- Typically consists of 6-10 participants
- Select people with characteristics of greatest interest
- Usually lasts between 60-90 minutes
- Usually tape recorded, transcribed, & coded



# Modified questions/words

Type of changes	Former question	Modified questions
<b>Meaning</b>	"Futbol" (soccer)	"Futbol americano" (football)
<b>Literacy</b>	<p>"expendedora" (vending machine)</p> <p>"Convive con su pareja" (cohabitate with your partner)</p> <p>→ "intensidad vigorosa" (vigorous)</p> <p>"cirugia" (surgery)</p>	<p>"maquinas que venden alimentos" (machines that sell food)</p> <p>"Vive con su pareja" (live with your partner)</p> <p>"mucho esfuerzo fisico" (a lot of effort physically) ←</p> <p>"operacion" (operation)</p>
<b>Inclusion of a variety of words</b>	"lugar de veneracion o culto" (place of worship or sacred place)	"lugar de veneracion, oracion, o culto" (place of worship, sacred place, or prayer place)





# Modified questions/words

<p><b>Cultural relevance</b> <i>What activities do you like to do?</i></p>	<p><i>Remove</i></p> <p>cazando (hunting) pescando (fishing) escalando (rock-climbing)</p>	<p><i>Add</i></p> <p>limpieza (cleaning) construccion (construction) fabricas (factories) cajero (cashiers) carniceria (meat sellers)</p>
<p><b>Metric</b></p>	<p>"dos pies" (two feet)</p>	<p>"24 pulgadas" (24 inches)</p>
<p><b>Feminine words</b></p>	<p>"nervioso" (nervous)</p>	<p>"nervios(a)" (nervous)</p>
<p><b>Tu vs. Usted (Informal vs. formal)</b></p>	<p>"describe come te sientes" (tell us how you feel)</p>	<p>"describa come se siente" (tell us how you feel)</p>



# Cognitive interviews

- A cognitive interview is different from a traditional standardized interview and from an everyday conversation
- The researcher asks the questions in a standardized way but also asks the respondents to think aloud, highlight problems, express their opinion, make judgments on the questions...



# Cognitive interview characteristics

- Designed to be intensive one-on-one & face-to-face
- Usually tape recorded, transcribed, & coded
- 45 minutes to 1 ½ hrs
- Select people with characteristics of greatest interest



# Cognitive interview methodology

- Ideal to begin a cognitive interview with a short training or practice session
  - Respondent encouraged to think out loud
- Questions asked in standardized way



# Examples of probes

How often do you exercise?

*Everyday, every other day, at least two or three times a week, at least once a month, never*

Think-aloud/general

How did you answer that question?

Tell me what you are thinking?

I noticed you hesitated before you answered, what were you thinking?

How easy or difficult did you find this question?

Why do you say that?

How would you ask this question to a friend?

Were there words that you would change?

Comprehension

What does the term \_\_\_\_\_ mean to you?

Retrieval

How did you remember that?

Confidence judgment

How well do you remember this?

Response

Were you able to find your first answer to the question from the response option shown?

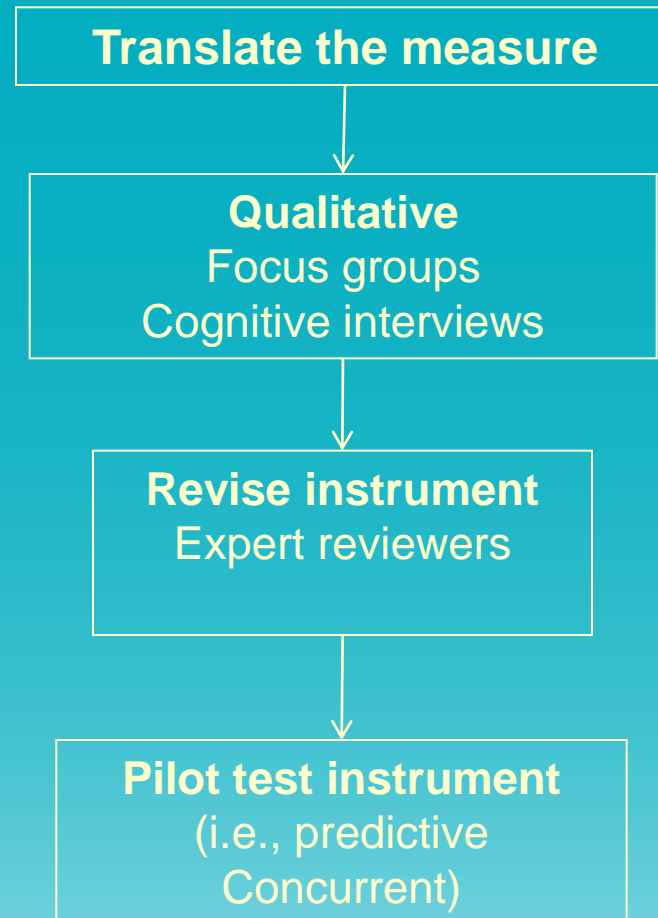


# Common mistakes

- Not asking the question exactly as it is written
- Not getting the participant to answer the question
- Not following-up on indication that the participant has responded incorrectly
- Forgetting to pursue how participants are interpreting key words



# Process





# Final comments

- Cultural adaptation is an important part of designing effective questionnaires
- Important to do the work ahead of time to minimize measurement error
  - Translating a measure
  - Collecting qualitative data
- These are important considerations to help advance the field of physical activity





Thank you