Cognitive Interviewing as a Study of Validity

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Constructs Identified in Cognitive Interviewing Studies

Question: What race best describes you?

1) Social: race most often perceive by others

2) Cultural: race of the community most affiliated

3) Administrative: race indicated on administrative records, e.g., birth certificates, driver’s licenses, employment and school applications

4) Ancestral: the largest percentage of their genealogy
Hearing:
Do you/Does [Name] have difficulty hearing?

Adult Self-Report: Auditory ability
Parent Proxy for Child: Auditory ability & Listening

Walking:
Do you have difficulty walking 100 yards?
Compared with other children of the same age, does [he/she] have difficulty walking?

Adult Self-Report: Mobility
Parent Proxy for Child: Mobility & Desire to Walk
Constructs Identified in Cognitive Interviewing Studies

Question: How often do you feel worried, nervous or anxious?

- Stress
  - Workload, deadlines, performances
  - Relationship/family problems
  - Dread/concern about future
    - Economic security
    - Health concerns

- Clinical/diagnosed anxiety

- Excitement/Positive energy
Field Test: Percentage of Reporting Anxiety Characteristics

- Positive: 60%
- Chest: 40%
- Interfere: 80%
- Clinical: 10%
# Field Test: Characteristics Reported by Country

<table>
<thead>
<tr>
<th></th>
<th>Kazakhstan</th>
<th>Cambodia</th>
<th>Sri Lanka</th>
<th>Maldives</th>
<th>Mongolia</th>
<th>Philippines</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positive</td>
<td>50.3%</td>
<td>47.8%</td>
<td>12.6%</td>
<td>51.7%</td>
<td>82.5%</td>
<td>32.4%</td>
</tr>
<tr>
<td>Chest hurts</td>
<td>21.4%</td>
<td>72.3%</td>
<td>30.9%</td>
<td>37.0%</td>
<td>50.6%</td>
<td>20.3%</td>
</tr>
<tr>
<td>Interfere</td>
<td>52.2%</td>
<td>65.0%</td>
<td>85.4%</td>
<td>54.8%</td>
<td>72.8%</td>
<td>33.5%</td>
</tr>
<tr>
<td>Clinical</td>
<td>11.8%</td>
<td>16.8%</td>
<td>3.0%</td>
<td>28.4%</td>
<td>18.6%</td>
<td>11.5%</td>
</tr>
</tbody>
</table>

Note. Chi-square p <.05 for all rows in the table.
Purposes of CI Studies:

1. Reveal observable difficulties that respondents experience when attempting to answer a survey question.

2. Identify the specific construct(s) captured by the survey question.

3. Identify whether particular groups of respondents interpret and process a survey question consistently.

4. Identify whether questions in various languages perform consistently.
Findings:

1. Can lead to recommendations for improving a survey question

2. Are beneficial to post-survey analysis by informing data interpretation.
Best Practice

Perform cognitive testing with an eye toward what the question captures, not how many and what “problems” can be identified

Pre-survey Question Improvements
- “Question Problems” may not be problems, depending on context of question and the intended use
- Not all “problems” are identified without validity study

Post-survey Analysis
- Assist the data user in the interpretation of the data
- Evidence for surveys that the variables indeed represent what they purport to measure