


## Introducing the CIRF: a framework for reporting cognitive interviewing studies

**Hennie Boeije & Gordon Willis**

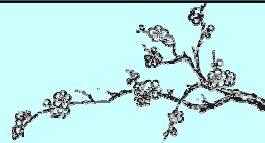
Hennie Boeije | Department of Methodology and Statistics | Faculty of Social and  
Behavioural sciences | Utrecht University | P.O. Box 80140 | 3508 TC Utrecht |  
The Netherlands | tel. +31 302534547 | e-mail h.boeije@uu.nl  
Gordon Willis | National Cancer Institute, National Institutes for Health | USA



## Contents

- ESRA 2009
    - Cognitive interviewing (CI) as qualitative research*
  - Relevance of professional standards CI
  - Developing the CIRF
    - Cognitive Interviewing Reporting Framework*
  - Contents of the CIRF
  - Testing its use: applications and experiences
- 

# Definition



- *Cognitive interviewing* is the administration of draft survey questions while collecting additional verbal information about the survey responses, which is used to evaluate the quality of the response or to help determine whether the question is generating the information that its author intends.

(Beatty & Willis, 2007)

3

# Cognitive interviewing as qualitative research



## ■ Qualitative research

1. *Purpose:* finding out how people give meaning to their social world with concern to research questions
2. *Methods:* semi-structured, emerging, flexible
3. *Procedure:* iterative process, multiple research rounds - collection, analysis, reflection
4. *Findings:* description and understanding of the social phenomenon under study, theoretical and/or practical implications

## ■ Cognitive interviewing

1. *Purpose:* meaning finding as related to the questionnaire items
2. *Methods:* process is structured by survey questions, sometimes emerging
3. *Procedure:* iterative process, multiple testing rounds – design, test, analysis
4. *Findings:* description and understanding of the survey questions and the questionnaire, relevant implications in order to improve the questionnaire



4

## Diversity in CI

Concurrent probing  
Retrospective probing  
**Think-aloud**  
Training of interviewers  
**Selection of samples**

### *Written notes*

Recording sessions

*Data reduction*

### **SUCCESSIVE ANALYSIS**

*Parallel analysis*



5

## Towards harmonization CI reports

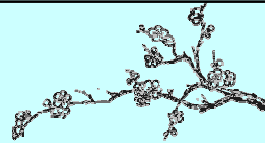
- Procedures not well-described →
- Difficulty determining methodological steps →
- Difficulty determining efficacy CI approach



- Systematically describing procedures →
- Comparison CI approaches →
- Determining effectiveness approaches (outcome evaluation)

6

# Uniformity of reports



## ■ Strengths

- Raise awareness quality issues
- Coverage important information
- Raise awareness quality
- Transparency
- Reproducibility
- Comparability
- Building body of knowledge
- ...

## ■ Weaknesses

- Lengthy reports
- Obligation to put in irrelevant data
- .....

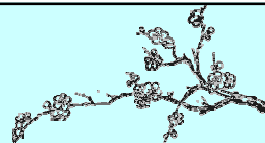
**Warning** Rosaline S Barbour:  
the tail wagging the dog



**FLEXIBILITY**

7

# Development of the CIRF



- 1) Retrieval checklists qualitative research
  - Critical Review Form (Letts et al., 2007)
  - Criteria for evaluation of research papers (Seale, 1999)
  - British Medical Journal, checklist authors and editors
  - Quality framework for assessing research evidence (Spencer et al., 2003).
  - And more...
- 2) Categorizing different items resulting in 10 clusters
- 3) Listing them and providing contents and instructions
- 4) Adapting the items to CI-practice



8

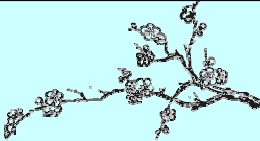
# CIRF categories



- Research objectives
- Research design
- Ethics
- Participant selection
- Data collection
- Data analysis
- Findings
- Conclusion, implications, and discussion
- Strengths and limitations
- Report format

9

## Applying and testing



- 1) Five research groups and their CI projects
  - \* Bode, C. & Jansen, H. Reporting cognitive interviews according to the CIRF guidelines; the personal experience of Aging Scale as an example
  - \* Meertens, V. & Vis-Visschers, R. Using the CIRF to report on a Dutch pre-test of a European Health Survey Questionnaire
  - \* Giesen, D., Feskens, R. & Van de Meulen-Arts, S. The cognitive testing of a health questionnaire for residents of elderly and nursing homes
  - \* Padilla, J.L., Benitez, I. & Castillo, M. Obtaining validity evidence by cognitive interviewing to interpret psychometric results
  - \* Zuidgeest, M., Damman, O.C., Rademakers, J.J.D.J.M & Delnoij, D.M.J. Pretesting patient experience questionnaire; a case report on the Dutch Consumer Quality Index
- 2) Asked to use the CIRF for reporting their CI-study
- 3) Reflections and experiences
- 4) Special issue

Survey Research Methods

Presentations  
ESRA 2011

10



*Thank you for your attention*

