The Effect of Providing Think-Aloud Examples and Practice on Cognitive Interviewing in Nepal

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Outline

- Background

- Research Questions and Outcome Measures

- Study Design and Methods

- Results

- Discussion

- Next Steps

Background

- Cognitive interviewing is most effective when respondents verbalize their thought process

- This process may be unfamiliar and difficult for some respondents

- Past studies have discussed difficulties applying standard cognitive interviewing methods to different linguistic and cultural groups (e.g. Willis and Zahnd, 2007; Pan et al., 2010; Miller et al., 2011)

Background

- Findings suggest that more appropriate ways may be needed to engage populations with different communication styles and cultural norms

- Goerman and King (2014) have examined ways of improving the cognitive interviewing experience for Spanish-speaking respondents in the US

- Little research or guidance exists on how to apply cognitive interviewing in contexts such as Nepal

Research Questions

- Does providing examples and practice think-alouds increase the amount of data available for qualitative analysis?

- Does providing examples and practice think-alouds increase respondent-reported ease and comfort with the cognitive interviewing process?

Outcome Measures

- Average number of unprompted concepts

- Average number of codable concepts

- Average number of times interviewer probed

- Level of respondent reported ease/difficulty, comfort/discomfort with thinking aloud, ease/difficulty understanding the questions

Study Design and Methods

- Five interviewers at the Institute for Social and Environmental Research (ISER) in Chitwan Valley, Nepal conducted the cognitive interviews (n=40)

- The study tested questions for an international household survey on disability

- Respondents were randomly assigned to a treatment or a control condition

Study Design and Methods

Treatment Condition:

- Interviewer demonstrates with example question:
  - Interviewer think aloud includes uncertainty about whether to count a particular window – explains that we are interested in all R's thoughts because people think differently about things

- Two respondent practice questions:
  - Interviewer probes if R has difficulty and provides feedback (e.g. *"That's great. Thinking aloud like this is just what we need."*)

Study Design and Methods

- Interviews were recorded and interviewers transcribed and translated their notes into English

- The UMICH team coded the transcribed interviews as follows:
  - First utterance
    - Unprompted: Codable; Off topic; Unclear; Restating answer OR
    - Prompted: Codable; Off topic; Unclear; Restating answer
  - Number of times interviewer probed
  - Total number of codable concepts
  - Number of unprompted codable concepts

Sample Characteristics

	Control (n=22)	Treatment (n=18)
Gender		
Male	12	8
Female	10	10
Education		
No formal education	15	10
Primary	1	2
Secondary – no degree	2	3
Secondary – degree	3	0
Post-secondary	1	3
Ethnicity		
Bramin/Chhetri (High caste Hindu)	6	11
Hill Tibeto-burmese	13	3
Dalit (Lower caste Hindu)	2	2
Newar	0	1
Terai Tibeto-burmese	1	1
Interviewer		
Interviewer 1	4	1
Interviewer 2	5	5
Interviewer 3	5	1
Interviewer 4	8	9
Interviewer 5	0	2

Number of Unprompted and Prompted Responses

	Control (n=660)	Treatment (n=540)
Unprompted	83%	79%
Prompted	16%	21%
No Utterance*	1%	1%
Unprompted		
Codable Concept(s)	62%	59%
Restating Answer	18%	18%
Unclear/Off topic	3%	2%
Prompted		
Codable Concept(s)	14%	18%
Restating Answer	1%	1%
Unclear/Off topic	1%	2%

*No unprompted utterance and no probing by interviewer

Interviewer Probing and Codable Concepts

	Control (n=660)	Treatment (540)
Average number of interviewer probes	1.50	1.44
Average number of codable concepts	2.96	2.85
Average number of codable concepts without probing	1.11	0.99

Results by Respondent Gender

	Male		Female	
	Control (n=360)	**Treatment (n=240)**	**Control (n=300)**	**Treatment (n=300)**
Unprompted				
Codable	62%	69%	61%	50%
Restating Answer	20%	9%	16%	25%
Unclear/Off topic	3%	3%	4%	2%
Prompted				
Codable	13%	16%	14%	19%
Restating Answer	1%	1%	1%	1%
Unclear/Off topic	1%	3%	1%	1%
No Utterance	0%	0%	1%	1%

Interviewer Probing and Codable Concepts by Gender

	Male		Female	
	Control (n=360)	**Treatment (n=240)**	**Control (n=300)**	**Treatment (n=300)**
Average number of times interviewer probed	1.45	1.33	1.56	1.52
Average number of codable concepts	3.03	2.84	2.88	2.86
Average number of codable concepts without probing	1.13	1.17	1.09	0.84

Debriefing Questions

	Control (n=22)	Treatment (n=18)
Question		
How easy/difficult to think aloud		
Very difficult/Somewhat difficult	18%	6%
Not difficult but not easy	23%	22%
Very easy/Somewhat easy	59%	72%
How comfortable/uncomfortable to think aloud		
Very uncomfortable/somewhat uncomfortable	14%	23%
Not uncomfortable but not comfortable	23%	17%
Very comfortable/Somewhat comfortable	60%	61%
Don't know	5%	0%

Debriefing Questions

	Control (n=22)	Treatment (n=18)
Question		
How easy/difficult understand the questions		
Very difficult/Somewhat difficult	32%	28%
Not difficult but not easy	18%	22%
Somewhat easy	46%	50%
Don't know	5%	0%

Discussion

- Respondents provided fewer unprompted and more prompted responses in the treatment group

- Results are very similar for type of unprompted and prompted responses (codable/restating/unclear)

- Treatment group respondents also offered fewer total codable and unprompted codable concepts

- Interviewers needed to probe slightly less in treatment group but this was associated with fewer codable concepts

Discussion

- Key differences by respondent gender – males appeared to respond better to treatment but opposite effect for females

- Unbalanced sample may have contributed or cultural gender differences that the treatment did not ameliorate

- Education and ethnicity – no clear pattern

- Responses to debriefing questions were similar for both control and treatment

Next Steps

- Double coding and inter-rater reliability

- Significance tests

- Analysis to examine the interaction between key respondent characteristics

- Analysis controlling for interviewers

- Compare debriefing responses with outcomes

- Discuss results with Nepali colleagues

- Think about alternative strategies – and ways to encourage more response from female respondents in particular

Questions?

Thank you!

Introduction to the Interview (treatment and control)

[INTERVIEWER INSTRUCTION: INTRODUCE YOURSELF AND THANK RESPONDENT FOR COMING IN TO HELP US WITH OUR STUDY. THEN READ:]

Before we get started, I will go over some things that we would like you to know. We asked you to come in today to help us develop questions that will be used in several countries. These questions will eventually be asked of many people in your country and other countries to learn about how people live their lives. Before the questions are used widely in your country and others, we want to understand how people like you understand and think about the questions. This is because people have many different types of experiences and ways of thinking.

For some of the questions, I'll ask you to look at numbered cards that list answer choices. After you've read the choices on the card, you can tell me your answer or, if you prefer, you can just tell me the <u>number</u> next to the answer you choose.

I will be asking you the questions and then I will ask you some additional questions on how you arrived at your answer.

We are interested in finding out how you come up with an answer to each of the questions that we have here today. Instead of thinking silently, <u>I want you to constantly say what you are thinking while you are deciding about your answers to the questions</u>. <u>I want you to tell me everything you are thinking until you have given your final answer to the question.</u> This will help us understand your thoughts about the question.

<u>Also, I will sometimes ask you about what you just said to get a more complete understanding of your thoughts about the question.</u> And if you are silent for any length of time, I will remind you to keep talking.

Don't worry if you sometimes feel that your thinking is not related to the question. We are interested in <u>all</u> your thoughts.

Is it clear what I am asking you to do? *[INTERVIEWER: If necessary, clarify by rereading all of the sentences that are underlined above.]*

Example and Practice (treatment)

INTERVIEWER: Let's start with some practice questions. To think aloud, just act as if you are alone in the room talking to yourself. If you are silent for any length of time, I will remind you to keep talking. This may seem a little difficult at first, but then it will become very easy. Let's pretend that I am the one answering a question. The question is:

How many windows do you have in your home?

I might say, "Walking into my house, I have a small window over my front door. I'm not sure if that one counts as a window – but I will count it anyway. Then I have one big window in the front room. Then there is one window in the kitchen. So, that is three windows so far….Going back to the bedroom, there are another two windows, which makes five windows. There is also one window in the bathroom. So that would be six windows in my home."

You may have noticed that I wasn't sure about whether to count the first window I mentioned. We are interested in getting all your thoughts because people think differently about things. We want to make sure that we learn how many different people think about the questions we ask.

Now you try the next question. Remember to tell me everything that you are thinking.

How many chairs do you have in your home?

INTERVIEWER: wait while the respondent practices.

Example and Practice (treatment)

→ *If the respondent is having difficulty – ask "What are you thinking?" or "What thoughts are going through your mind right now?"*
→ *If the respondent is thinking aloud with no difficulty "That's great. Thinking aloud like this is just what we need." or "Good. Your comments help me understand what you are thinking about."*

Let's try one more.

For how many years have you been living at your current address?

INTERVIEWER: wait while the respondent practices.

→ *If the respondent is having difficulty – ask "What are you thinking?" or "What thoughts are going through your mind right now?"*

→ *If the respondent is thinking aloud with no difficulty "That's great. Thinking aloud like this is just what we need." or "Good. Your comments help me understand what you are thinking about."*

[INTERVIEWER: wait while the respondent practices]
Let's get started. I will read each question out loud first. Don't worry if you are not sure of the right answer – just do your best. For this study, we are more interested in <u>how</u> you arrive at your answer than whether or not it is correct. So remember to think aloud as you work your way toward an answer. Ready?

[INTERVIEWER INSTRUCTION: ANSWER RESPONDENT'S QUESTIONS AND THEN BEGIN INTERVIEW.]