

Early Stage Scoping: Bridging the Gap between Survey Concepts and Survey Questions

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What is Early Stage Scoping?

- Qualitative, not quantitative, method
- Visit respondent without a questionnaire
- Discuss survey topics in general terms
- Explore respondent's ability to provide survey information
- Discuss survey process with respondent

Today's Talk

- “How-to” approach
- Examples from two different surveys

Goals for Survey Design

- Use correct terminology
- Identify correct respondent
- Match the survey data request to respondent's records
- Increase credibility
- Motivate response and high quality

The Standard Approach

- Talk to subject matter experts
- Draft questionnaire
- Pretest the questionnaire

Hazards of the Standard Approach

- Emphasizes questionnaire; ignores process
- First respondent input is questionnaire testing—requires many iterations to get it right
 - Respondents' language doesn't match
 - Recordkeeping doesn't match
 - Different respondent has information

Hazards of Standard Approach (continued)

- Experts may not know:
 - What records are available
 - Amount of burden to retrieve records
 - Language used by respondents
 - Best endorsements to motivate respondents

Respondents Are the Experts

- Talk to them early
- Talk to them often

Benefits of Early Stage Scoping

- Shortens time to write and test questionnaire
- Helps refine data measures to match records
- Helps convince clients/subject matter experts of need to limit scope of content to what respondents can and will provide

(continued)

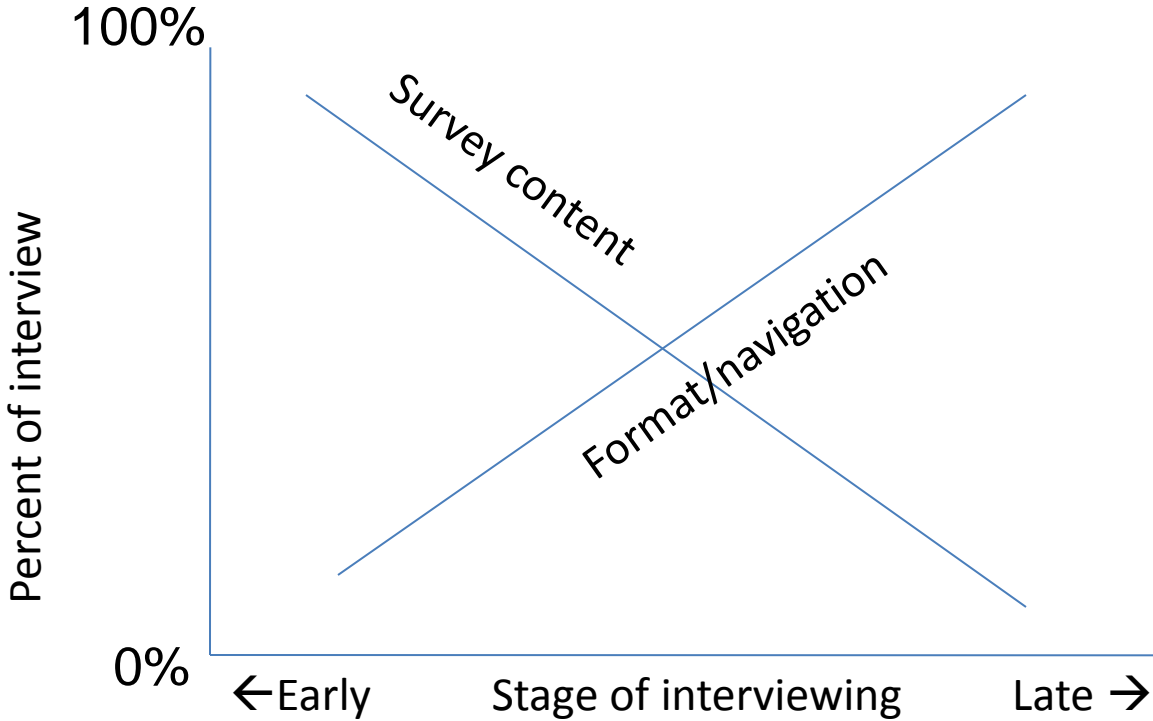
Benefits of Early Stage Scoping (continued)

- Uncovers issues early so they don't cause problems later
- Results in lower cost for survey design

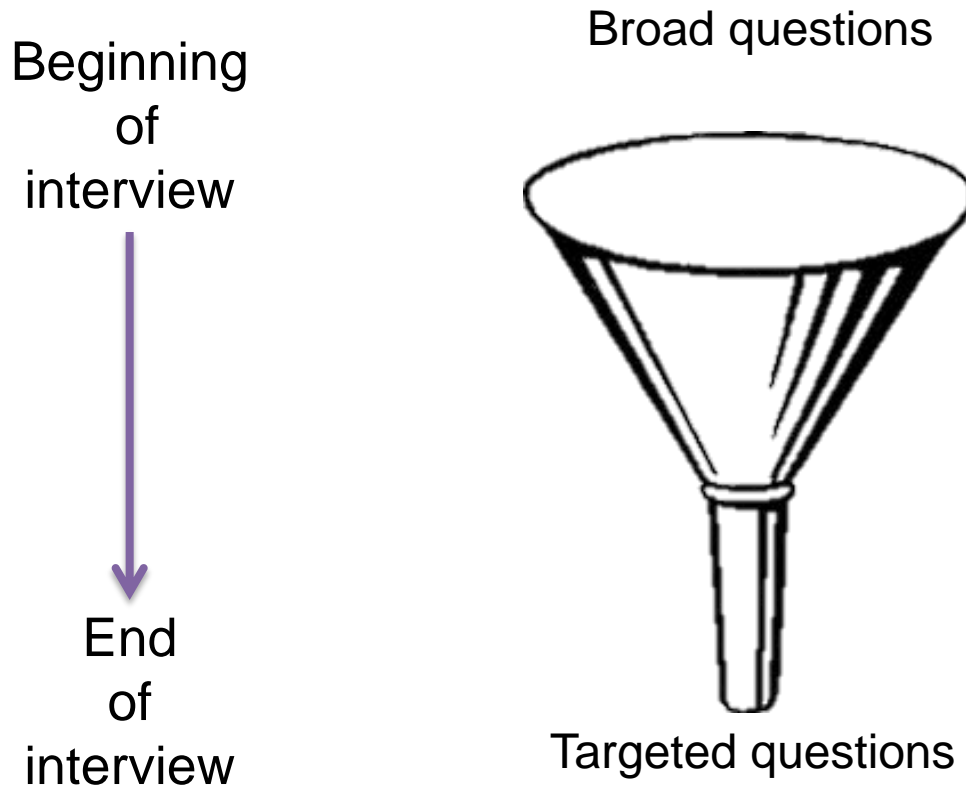
Overview of Characteristics of Early Stage Scoping

- Sliding scale of interview content
- Funnel approach to conducting interviews
- Recruit variety of respondents
- Number of respondents may be small
- Protocol with open-ended questions
- Interview method – conversational style
- Neutral probing as issues arise

Sliding Scale of Interview Content



Funnel Approach to Conducting Interviews



Crafting a Protocol

- Protocol is a set of open-ended questions to guide the interview, not an exact script
- Use the protocol to agree on issues to be covered
- Revise protocol throughout interviewing process to reflect emerging issues

Interview Method

- Face-to-face interviews
- Phone interviews as needed
- Conversational style
 - Don't have to follow protocol exactly
- Situation guides the discussion
 - Don't have to ask topics in same order for each respondent

Neutral Probing as Issues Arise

- Can you tell me more about that?
- How does that work here?
- What's your opinion about that?

Criteria for Recruitment

- Variety of respondents
 - Type of organization (e.g., industry)
 - Size of organization (e.g., number of employees, amount of R&D)
 - Geographic location
 - Level of responsibility
- Outliers not as helpful
- Use proxies as appropriate

Number of Respondents May be Small

- Can learn useful information with just 5-10 interviews
- Both individual and group interviews are appropriate
- One hour is typical length for interview

Early Stage Scoping Interviews: What We Learned from Two Surveys

Project 1: Developing a New Survey (State Survey)

- State R&D Survey -- Jointly conducted by U.S. Census Bureau and National Science Foundation (NSF)
- Purpose: Estimate R&D expenditures for state government sector of U.S. economy and provide trends in R&D
- 11 year gap since last conducted

Project 2: Adding Questions to an Ongoing Survey (Business Survey)

- Business R&D and Innovation Survey: also jointly conducted by Census Bureau and NSF
- Purpose: Measure trends in R&D and innovation in business sector of U.S. economy
- Conducted annually since 1953
- Requirement for new survey items to measure an economic concept, “service lives”

Topics for Interviews

Survey process

- Best respondent
- Survey mode and process
- Motivation for response
- Timing and deadlines

Topics for Interview (continued)

Survey content

- Vocabulary of respondents
- Data availability
- Best match to respondent records
- Confidentiality and sensitive issues

Best Respondent

Scoping Question

Who should receive the survey request from us?

Findings for State Survey

- Governor should receive initial request, with suggestion for state coordinator
 - No access to actual survey information

Findings for Business Survey

- Current survey coordinator still okay

Best Respondent (continued)

Scoping Question

Who do you think would actually collect the information?

Findings from State Survey

- State agencies have data needed
- State coordinator submits official state response

Findings for Business Survey

- For larger companies, vice president of business unit
- For other companies, vice president of sales or product development

Survey Mode and Process

Scoping Question for State Survey

How would you prefer to submit your survey answers? (As needed: A paper questionnaire, web survey, Excel spreadsheet, raw data?)

Findings

- Everyone expects a web survey
- PDF helpful to show survey questions and definitions
- Send mail to governors to start process

Motivation for Response

Scoping Questions for State Survey (series approach)

What would motivate you to return the questionnaire to us?

Are there any associations we should ask for an endorsement letter?

What about the National Governors Association (NGA)?

Findings

- Governors respond to other governors
- Endorsement by NGA will motivate governor's office
- Governor's authority will motivate agency respondents

Timing and Deadlines

Scoping Question:

How long would it take you to collect this information?

Findings:

- 60 day deadline okay for state survey
- We needed to scale back the amount of information requested for business survey, because it would have been too time consuming

Vocabulary of Respondents

Scoping Question

We have a list of terms we'd like to ask you about. The first one is "service lives". What does that term mean to you?

Findings

- Some worked
 - Okay to use "academic institution" for state survey
- Some needed definitions, examples, scenarios
 - We added materials to explain R&D to states
- Some didn't work
 - "Service lives" was not a familiar term for the businesses

Data Availability

Scoping Questions for State Survey

What types of information do you have on R&D?
Where is it kept?

Findings

- Governor's office: This level too high
- R&D project leader: This level too low
- State department/agency: Just right!

Data Availability (continued)

Scoping Questions for Business Survey

If we asked you to answer questions about your most recent product that resulted from your company's R&D, how would you go about selecting it?

Findings

- Companies found it difficult to identify their most recent product
- We allowed respondents to choose one recent product

Best Match to Respondent Records

Scoping Questions for State Survey

Should we ask for exact figures, dollars in thousands, or something else?

Findings

- Respondents okay with dollars in thousands
- Exact figures best choice for this population
- Rounding complicates total amounts

Best Match to Respondent Records (continued)

Scoping Questions for Business Survey

If we asked you to answer questions about a similar product that resulted from your company's R&D about 10 years ago, how would you go about answering that?

Findings

- Most companies indicated that they would find it extremely burdensome, if not impossible, to retrieve information about R&D products from 10 years ago

Confidentiality and Sensitive Issues

Scoping Question for State Survey

We're planning to publish the data state by state. Would you have any concerns about that?

Findings

- These are public data—no confidentiality concerns

Conclusions

- Early stage scoping is quick and inexpensive
- Shortens time for pretesting
- Shortens time for usability testing
- Business survey client was satisfied with resulting data
- Debriefings with state survey respondents found high levels of satisfaction with “new” survey

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