

From Concept to Question: Using Early Stage Scoping Interviews to Develop Effective Survey Questions to Measure Innovation in Businesses

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Overview

- Background – Innovation Survey Project
- Early stage scoping (ESS) method
- Objectives of our research
- Types of data collected and how used
- Strategies for questionnaire design

Background

- Measuring innovation is not new
 - Concerns about performance of some survey questions
 - Desire to expand types of data collected
- Research effort coordinated by Organisation for Economic Cooperation and Development
- Goals:
 - Assess feasibility of collecting additional data on private-sector innovation
 - Inform design of survey questions

Early Stage Scoping (ESS)

- Qualitative interview technique
- Inform development of survey questions
 - Bridge survey concepts and respondents' concepts to facilitate comprehension
 - Understand what types of data are obtainable
- Use respondents and companies as starting point

ESS vs. Cognitive Interviews

Different goals

- Cognitive interviews
 - Test draft questions and questionnaires
 - Wording, visual design, navigation, functionality
- ESS
 - Evaluate new concepts
 - Inform design of survey questions
 - Target data that are consistently measurable

Procedures

- Semi-structured interviews with company representatives
- Non-probability sample
 - n=23 companies, 36 participants
 - Companies – Diverse with regard to size and relevant industries
 - Participants – Detailed knowledge of company activities

Objectives of our research



1. Understand context of target population

- Is “innovation” a relevant concept?
- How do respondents define innovation?
- What terms are used?
- Examples of company activities?
- Internal criteria / metrics?

2. Assess comprehensibility of draft survey concepts

- Where do respondents' understanding of innovation agree and disagree with survey concepts?
- How can Rs' perspectives be used as basis to facilitate understanding?

3. Assess availability of data

- What knowledge and records are associated with in-scope activities?
- Who are appropriate respondents?

Types of data collected and their purpose

1. Respondents' descriptions of innovation

- Provide basis for:
 - Learning Rs' concepts and terminology
 - Assessing consistency and variation among Rs, companies, and industries
 - Evaluating validity of draft survey definitions

2. Reactions to draft survey definitions

- Provide basis for :
 - Detecting whether draft survey definitions are clear or not
 - Identifying specific points of agreement and disagreement with Rs' concepts and language
 - Understanding relevance to company activities

3. Examples of company activities associated with innovation

- Provide basis for:
 - Clarifying and complementing Rs' definitions
 - Assessing comprehension and validity of survey concepts
 - Discussing records
 - Developing effective instructions (in-scope vs. out-of-scope activities)

4. Discussion of data sources

- Individual knowledge vs. records
- Level of detail
- Terminology
- Response processes
- Data quality, burden
- Who are appropriate respondents?

Survey development strategies

- How to apply what we learned in ESS interviews to designing survey questions?

Survey development strategies

- “Unpack” concepts/definitions as needed to reduce complexity and/or ambiguity
 - Parse complex concepts into separate questions
 - Identify key terms and other components that require clarification

Survey development strategies

- Clarify critical distinctions between similar survey concepts by using language and terms that respondents are familiar with
- Provide examples of in-scope and out-of-scope activities
- Use vignettes that illustrate differences between similar concepts

Summary – Conduct ESS to:

- Evaluate, validate, and refine survey concepts
- Inform design of survey questions to account for:
 - R language and concepts
 - Data availability
 - Cognitive processes
 - Response processes

Discussion: How do you deal with survey concept development?

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