Developing and Managing Mixed Mode Surveys

Technical and Methodological Challenges

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Context – Mixed Modes of Collection

“One of the most important challenges to survey researchers is deciding which data collection method or mix of methods is optimal…”

This Presentation

Mixed Mode:

1. Study design considerations
   - Data collection protocol and sample delivery

2. Instrument development considerations

3. Technical system considerations
Design -- Data Collection Protocol

• Types of contact and modes
• Sequence of modes
• Switching modes
• Propensity models & responsive design
• Staffing and resource management
Instrument Development Considerations

• Questionnaire design issues
  ➢ Visual Layout

• Multiple devices

• Technical implementation
Multi-Mode Questionnaires and IT
Questionnaire Design Issues

• Adapting questions from CAPI/CATI to mixed mode
  – Interviewer instructions
  – Help text/definitions
  – Optional text (usually in parenthesis)
  – Volunteered response options (e.g. DK/RF)
  – Grids

• Navigation
  – Gate questions (i.e. critical questions that fill future questions)
  – Backups
  – Skips/Refusals

• How does it affect data quality?
BYOD – Bring Your Own Device
Technical System Considerations

• Information management
• System requirements and solutions

• *Michigan Survey Management System*
  – Integrated sample & survey management
  – Tailoring capacity
  – Paradata
System Requirements

• Support mixed- and multi-mode protocols in one project
• Automate the protocol so that it can be repeated and applied consistently
• Integrate survey management and sample management in one system
• Reflect survey management process
• Reduce project implementation effort and duration
• Minimize application recompiles and deployments
Solutions

1. System of interrelated applications and services
2. System architecture reflects business objects
3. Task-level structure throughout system
   - Automated rules sets that can be applied to important process steps, e.g. task rules
4. Project implementation through configuration
5. Project-level configuration allows best balance of customization and standardization
Mixed Mode PROCESS DIAGRAM

1. Define Protocol
2. Define Team
3. Define Sample
4. Identify Project Resources
5. Design Sample
   - Production
   - Training
   - Test
6. Define Mode
7. Create Tasks (Create a Sample Management Plan for the Project)
8. Assign Tasks to Resources
9. Collect Data
   - Paradata
   - Measure Data (for Transfer)
10. Analyze Paradata
11. Close Data Collection
12. Transfer Data
13. Collect Measures
14. Pay Respondent
15. Analyze Project Data
16. Close Project

Survey Design, Including Mode:
1. Design Instrument
2. Build Instrument
3. Test Instrument
4. Final Instrument
5. Training

Revised 2013-10-24
Michigan Survey Management System (MSMS)

- Moved from a sample-based framework to a task-based framework
  - Sample level information can be shared with multiple users without conflict

- Tasks move; sample information remains ubiquitous to the necessary users
  - Task can be thought of mode or mode switch
  - Tasks all exist within the same management system
What is a business object model? This picture illustrates business objects – the things that make up the business of survey management – and their relationship to each other. It is a tool for the business analysis, design, and implementation of the system.

What it is not:
- This is not a workflow. Neither a sequence of activities nor a sequence of the creation of these objects is implied by this diagram.
- This is not a database schema, although the actual schema must conform to this abstraction.
- This is not a diagram of the classes that will actually be implemented in code, although the actual classes must conform to this abstraction.
Tailoring to Projects

• Configuration allows each project to use and show the attributes appropriate to its protocol

• Protocols can leverage and improve upon what has worked without affecting other projects
Tailored Protocols

We have adopted a standardized language for defining rules sets, such as task rules.

We have created a very simple table format for defining other parts of the protocol for import into MSMS.

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<th>ProjectArtifactId</th>
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Technical Systems, Mixed Modes and Paradata

Process data, paradata, can inform decisions and guide the trade-offs during the data collection.

1. Survey data collection (measures)
2. Survey management systems (sample; paradata)
3. Survey data collection reporting (data for analysis of trends or simple counts)
Questions or Discussion

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