Quality - Testing and Pilot Census

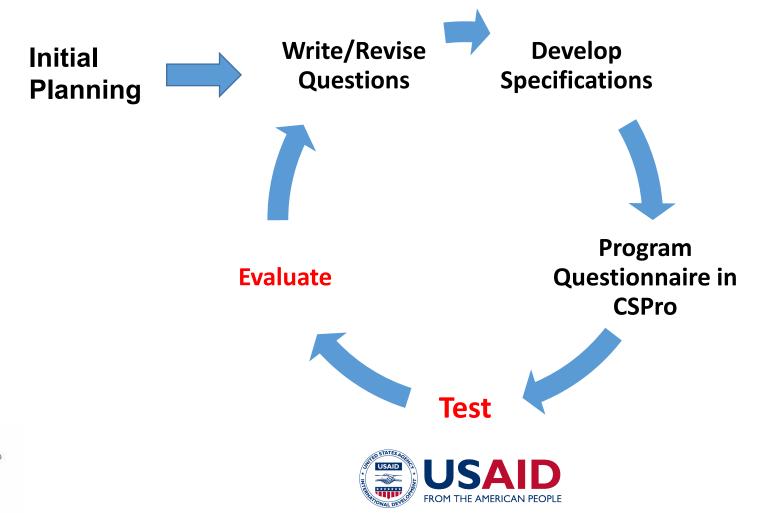
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Steps in the development of the electronic questionnaire: involve subject matter experts





Test, Test, and Test Again!

• Purpose:

- Functional
 - Make sure all aspects of the questionnaire (including the questions texts, response options, error messages, etc.) work as intended under all possible situations
- Usable
 - The enumerators can effectively and efficiently make use of the questionnaire to collect necessary data





Main Testing Approaches

- Question-by-question testing
 - Go through each question thoroughly, check for question wording, response options, missing values, fills, appearance, consistency checks, error messages, etc.
- Testing by task
 - Divide up different testing tasks among testers (e.g. one checks for skip patterns, another checks for wording)
- Scenario testing
 - Construct various scenarios of responses and enter them in the questionnaire application.





Main Testing Approaches

- Data testing
 - Examine the preliminary data output from the application
- Pretesting with survey respondents
 - Select respondents and pretest with them
- Simulating survey data
 - Produce random responses with questionnaire application, then examine the results for skip patterns and other types of logical errors.





More Rigorous Testing Methods

- Cognitive interviewing
 - Focuses on particular questions and understanding the cognitive processes involved in answering them through "think alouds" and probing
- Behavior coding
 - Interviewers are monitored
 - Interviewer and respondent behavior are coded
- Experiments
 - Test whether revisions are improvements by comparing original and revised questions





More Rigorous Testing Methods

- Statistical methods
 - Applying statistical methods for questionnaire evaluation (including modeling measurement error and item response patterns, predicting reliability and validity)
- Pilot census
 - A pilot census is a comprehensive trial that tests all census procedures. It tests personnel, systems, and procedures in an end-to-end "dress rehearsal," running through the entire process in a select number of enumeration areas.





Pilot Census



Censo Piloto Mali, 2019





Pilot Census Stages

• Pilot census activities can be classified into three stages: prepilot enumeration, pilot enumeration, and postpilot enumeration.

• Final pilot census plans should be tailored to each country and its data needs.





Prepilot Enumeration

Some of the most important considerations that should be kept in mind when observing the preenumeration stage during a pilot CAPI census are:

- Mapping
- Pilot Sample (purposive sampling)
- Recruitment
- Payroll
- Outreach and Publicity
- Printing

- Transportation
- Regional Offices
- IT Infrastructure
- Telecommunications Infrastructure
- IT Security
- Tablet Preparation
- Training Venues and Transportation
- Training, Trainers and Training Curriculum





Prepilot Enumeration: Census Kits

At a minimum, supervisor and census taker kits for a pilot CAPI census should include the following:

- Identification badges
- Uniform, apron, cap, vest, or other garment that serves as an identifier for field staff
- Tablet and protective case
- Printed manual, if not included in the tablet

- Bag to carry materials
- Pencil and notepad
- SIM card with adequate data plan for communication (when applicable)
- Mobile phone or SIM card for supervisors (when applicable)
- Supervisory paper and electronic maps
- Solar chargers or backup power banks
- Necessary power cords and adapters





Pilot Enumeration

The enumeration stage in a pilot census is when all systems and operations are tested. In addition, pilot enumeration activities usually cannot be paused or repeated if something unexpected happens. At this stage, pilot census managers must solve problems in real time.

Make sure you observe:

- Field staff preparedness
- Interviewing skills
- Teamwork communication
- CAPI application
- Effectiveness of outreach and publicity







Uzbekistan census, 2021

Pilot Enumeration

Systems that must be tested include:

- Maps and GPS systems
- Training effectiveness
- Transportation and communication logistics
- Deployment of IT systems and effectiveness of CAPI application
- Teamwork communications
- Outreach and publicity



Mali pilot census 2019





Postpilot Enumeration

Once enumeration in a pilot census has concluded, NSOs should compile collected data and go through the following phases:

- Data analysis and evaluation
 - Test transmission, storage, security, and other IT systems
 - Identify problematic questions or inconsistencies
 - Editing and Imputation programs
 - Documenting lessons learned





TAPEC and TAPEC-d





Tool for Assessing a Pilot Electronic Census

- The Tool for Assessing a Pilot Electronic Census (TAPEC) has 10 modules for an NSO to complete an assessment of a tablet-based pilot census of population and housing. These modules are:
 - Sample
 - Human Resources
 - Outreach and Publicity
 - Logistics
 - IT Infrastructure
 - Tablet Preparation
 - Training
 - Maps
 - Enumeration
 - CAPI Application





Tool for Assessing a Pilot Electronic Census

- The TAPEC Field Observation Items worksheet draws from the 10 modules.
- The TAPEC can compile a Report on Issues once all modules are completed.
- TAPEC worksheets include:
 - Instructions for debriefing enumerators and supervisors and suggested questions for focus groups.
 - Data on Pilot worksheet with information about the overall pilot which records average interview time, refusal and response rates, coverage, etc.





Tool for Assessing Pilot Electronic Census Data

- The Tool for Assessing a Pilot Electronic Census Data (TAPEC-d) has 2 modules to complete an assessment of an electronic pilot census dataset. These modules are:
 - Editing process steps
 - Checklist for data quality
- The TAPEC-d represent a sample of the most important checks that an NSO should perform during the data editing and imputation process.
 The TAPEC-d is not intended to be exhaustive. SMEs should perform additional diagnostics and procedures to identify and correct for errors.





Questions

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