

ODK for Survey Data Collection

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Our Work Environment ...



Agenda

- About ODK
- Project Characteristics & Requirements
- ODK Capabilities
- ODK at Westat
- Closing Comments

About ODK

- Open Data Kit (ODK) is an Open Source mobile data collection tool
- Developed and primarily maintained by graduate students of the University of Washington
- Actively being used by academia and a number of international research projects
- Initially funded by Google Research Award
- Has a very active user community
- Additional support options are available from former founders and graduate students
- Is Java based. All source code is available for review and/or modification
- Data collection client application runs on Android mobile devices

About ODK

Functions ODK Supports Include:

- Instrument/form authoring
- Field data collection
- Transmission of collected data
- Centralized storage and management of data

Primary components of ODK

- ODK Build
- ODK Collect
- Aggregate Server

Project Characteristics & Requirements

Research Areas



- International - mostly developing countries
- Variety of surveys across multiple projects
- Over 30,000 households surveyed across 10 countries
- Planning for 100K+ surveys across 20 countries
- Utilize third party field staff with varying experience using mobile technology for data collection
- Considerations for in-country capacity building

Project Characteristics & Requirements Environment

- Often data collection is performed in developing areas
 - Limited Infrastructure
 - Power Availability
 - Communications Infrastructure
 - Travel Difficulty
 - Rough Conditions
 - Unpaved Roads
 - Dusty Environments
 - High Humidity
 - Seasonal Conditions (e.g. rainy/monsoon season)

Project Characteristics & Requirements Software/Device

Software

- Government clients like Open Source solutions!
- International partners like Open Source solutions!
- Original Hope – Software with a quick learning curve, a low barrier to entry, and without a need for highly sophisticated developers

Device

- Small, light-weight devices (tablets)
- Cost-effective devices (Android vs. Windows)



ODK Capabilities

The Basics

- Operates on Android devices (including low cost devices)
- Operates in a disconnected mode
- Provides an end to end solution
- Non proprietary solution allows for capacity building
- Source code available for modification if specialized capabilities are needed
- Data is securely transmitted to Westat's hosting facilities.
- Use of tool by data collectors doesn't require specialized application skills
- Data can be extracted and used in a variety of forms

ODK Capabilities

Multi-Language and Multi-Selection For Data Capture

ODK Collect

MODULO G > MODULO G > Actividade (4:00 - 6:45)

Select all that apply.

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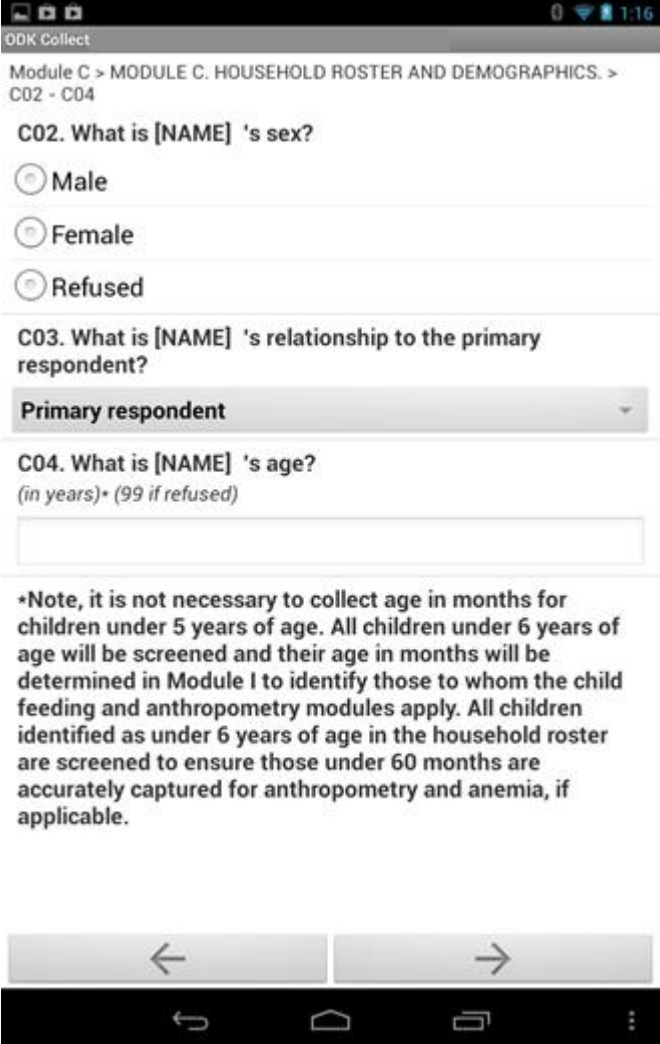
Navigation arrows: ← →

Android navigation bar: ↶ ◡ ◢ ⋮

ODK Capabilities

Wide Range of Data/Image Types

- Text
- Numeric
- Calculations
- Select one / multiple
- Date / Time
- Barcode
- GPS
- Photo / Video / Audio Capture
- More...



ODK Collect

Module C > MODULE C. HOUSEHOLD ROSTER AND DEMOGRAPHICS. >
C02 - C04

C02. What is [NAME] 's sex?

Male

Female

Refused

C03. What is [NAME] 's relationship to the primary respondent?

Primary respondent

C04. What is [NAME] 's age?
(in years)* (99 if refused)

*Note, it is not necessary to collect age in months for children under 5 years of age. All children under 6 years of age will be screened and their age in months will be determined in Module I to identify those to whom the child feeding and anthropometry modules apply. All children identified as under 6 years of age in the household roster are screened to ensure those under 60 months are accurately captured for anthropometry and anemia, if applicable.

ODK Capabilities

Simple Data Entry & User-Friendly Interface



ID: 2

201. Household member name

(Start with household head)

Member 2



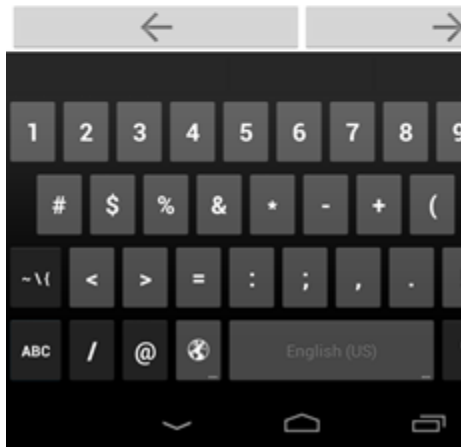
203. Member 2's sex

- Male
- Female
- Don't Know
- Refused



age in completed years

(in 1 year; -8 for Don't Know; -9 for Refused)



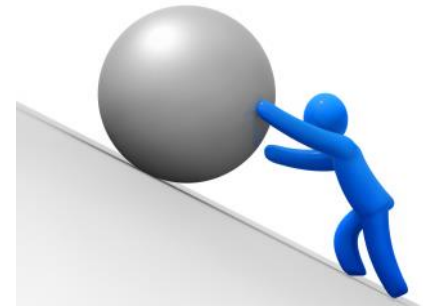
ODK at Westat

Staffing Skill Levels to Use ODK



- Junior Instrument Developers
- Senior Software Developers (Java skills are a plus!)
- Server Configuration & Security Management
- Field Teams – easy to use, low learning curve

ODK at Westat Our Challenges



- No built in Case Management and Assignment
- Limited approach for Supervisor data review and QC
- Limited support for ACASI
- Need for support of other project specific requirements
- More senior development than previously anticipated

ODK at Westat

Our Contributions to the ODK Community



- Significant feedback on server size limitations
- Passing data from one tablet to another within ODK
- Potential enhancements for ACASI capabilities
- Variety of feedback on advanced technical issues

Closing Comments

- Implementation of ODK surveys has been positive
- Unique needs should be identified early in the process
- Westat has stretched ODK to its limits in some ways
- Ease of use is highly dependent on complexity of survey

Questions?

