Converting a Blaise 4.8 Survey Instrument for Tablet Use

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2015 Field Interviewer Laptops would reach end of life.
Had to consider

- Device specifications
- Move from Windows XP and 7 OS to Windows 8.1
- Conversion of Java User Interface and Blaise survey instruments for touch screen
- Impact on data and interviewing techniques
- Resource availability
HOUSEHOLD Surveys Development Project

Traditional face to face interviewing to recruit Households and for more complex surveys

Introducing telephone interviews for LFS repeat waves

Focus on efficiency and innovation through automation and consolidation of processes
Initial Planning

Spring 2014 Investigation and development work begins

Research of
• Font standards
• Tablet design
• Developments in wider Blaise Community
Development

• Dell Latitude 10 Pro Tablet operating system 8.1 configured for test and review
• CAPI Survey (QNHS) redeveloped using template from CBS Netherlands
• Java User Interface redesigned
• Case Management System for LFS
Java UI Laptop for QNHS and Silc

Quarterly National Household Survey
Quarter: 0216
Java UI Tablet for QNHS and Silc
Java UI Tablet for QNHS and Silc
Problems encountered

- Keyboard
  - Interaction with dialogues
  - Text input
  - Search in browse view
Work around for Keyboard problems

• Additional button panel of Alpha A-Z created
• Move from Trigram to Alpha search Lookup files
• Tablet Charms bar to access keyboard for Browse search
Additional button panel of Alpha A-Z
1. Place the stylus or your finger at the edge of the right side of the screen.

2. Swipe to the left, this will activate the charm bar.

3. Select Settings from the charm bar.

4. Once the subsection of the Settings opens.

5. Select the ENG keyboard setting option.

6. When Dialogue box appears select Touch keyboard and handwriting panel.

7. The TapTip keyboard will now launch at the bottom of the screen.
Focus Groups and Field Test

Summer of 2014 Focus group formed and field test conducted

Interviewers interactions evaluated with

- Applications
- Button bar
- General tablet use

Some aspects not conducive to doorstep interviewing
Feedback included

- Tablet screen too small
- Alfa search coding
- Scrolling
- Java UI
- Help -(RoboHelp with Java)

- Button Panel Menu File
- Text v Image on buttons
- Position memory
- Left handed users
- Alpha keyboard
- Stylus Size
- Orientation
- Browser
  - Scrolling
  - Keyboard access
- Font size and style
Analysis

• Data collected identified no inconsistencies between laptop and tablet device

• Applications in their current form were not suitable for CAPI interviewing
Autumn of 2014 redevelopment work and tendering process begin

Dell Venue 11 Pro 10.8 selected.
Main Button panel  Coding Button panel  Access Control Panel
Please enter TOM's gender.

1. Male
2. Female
Please identify the person by keying in their first name.
December 2014 Workshop Held in Dublin Ireland

Attended By

• Gerrit DeBolster & Peter Sinkiewicz (CBS Statistics Netherlands)

• Karl Dinklemann (University of Michigan)

• Johnny Wallace (Nisra Northern Ireland)

• Jacqueline Hunt, Conor MacDomhnaill, Michelle Keniry, Edward Dwane, Garry Dunphy (Central Statistics Office Ireland)
The workshop was very beneficial
Discussions were held on
• Experience with mobile devices
• Development work being carried out

• The sharing of knowledge and code was a huge benefit to development work
  • Not reinventing the wheel
• Karl Dinkelmanns (University of Michigan) Keyboard incorporated

• Focus group January 2015
  • Test results disappointing
  • Could not change the display of the questionnaire
    • Form Pane covered in table with multiple lines
    • No auto adjust
  • Coding while not resolved was a workable solution
May 2015 second field test conducted over two week period

• Live interviews across six regions

• Interviewers with varying levels of computer skills

• Interviewers interactions evaluated

• Highlight differences in data returns from both laptop and tablet
Light weight

Case Robust

Help Better

Stylus sufficient

Suitable for day and night interviewing

Keyboard and Dialogues
Light weight
Case Robust
Suitable for day and night interviewing
Help Better
Stylus sufficient
Keyboard and Dialogues
Data analysis not skewed

Eye Contact Diminished
Loss of familiarity
Button Position
Miskeys
Lock and Freeze
Interview time increased
Release to the Field

• Field test deemed a success

• Testing involved required large amount of time and resources

• Testing required significant organisation

• One day training course delivered to each region

• This day was also used for tablet set up for each user
• Restricted survey properties file applied to allow users practice

• AutoIt executable run to remove practice files day of live release
Once the tablets were established in the field we began reviewing the feedback from 100+ interviewers.

Feedback was broken into categories

- Issues frequently reported by the field force as whole
- Issues reported by individual

Prioritized those relevant to mobile working and questionnaire completion
Began communication with Blaise CBS Statistic Netherlands on possibility of including functionality for tablets in Blaise 4.8.4

A wish list was complied

- Lookups, Remarks, Browser Shells - Built in Keyboard
- Increase to Dialogue buttons and scroll bars, Parallel entry box
- Possible way to set elements through modelib

Blaise CBS Statistics Netherlands developed Beta version of Blaise 4.8.5
Improvements included

• Inclusion of Tablet mode and Scale factor options

• Keyboard facility contained in the button panel menu file

• Increase to warning and instruction dialogues
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1. Male
2. Female

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• In June 2016 two interviewers tested and approved the changes

• In July 2016 the changes when live to the field

• During week 4-6 interviewers reported problems with new keyboard
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Lessons Learnt

• Overcoming resistance to introducing new tool

• Importance of user centric

• Training - refresher

• Importance of Button Panel Menu Design

• Workshop in Dublin & working with CBS

• No effect on Survey data