Session 10
Use of Tablets and Basics of CSPro

Data Quality Review (DQR)
Data Verification and System Assessment Workshop
Learning Objective

• Learn the basics of using tablet computers for data collection
• Learn the basics of using CSPro for data collection on the tablet
• Learn the basics of using CSPro for data entry on a personal computer
• Learn to collect accurate geo-spatial location data from health facilities using Global Positioning System (GPS) devices
Tablet basics
Basic functions of the tablet

- Power on and off
- Main buttons on the tablet
- Check that GPS, WiFi, screen rotate, are ON and that volume is OFF
- Check that date and time is accurate; reset if incorrect
- Connect to WiFi
- Access CSEntry app
- Quit app that is not responding
- Hard reset to reboot system
  - *holding down* the *Power* button and the *Volume-down* button *at the same time* for *more than 7 seconds* will force a *restart*
Basic functions

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Tablet Basics

* Needs country adaptation!

- **Back button** - Tap to return to the previous screen, or to close a dialog box, menu, or keyboard.
- **Front camera** - Take self-portraits and record videos of yourself.
- **Home button** - Press to return to the Home screen.
- **Light sensor** - Allows the device to detect current ambient light levels.
- **Memory card slot** - Install an optional memory card (not included) for storage of files.
- **Microphone** - Records audio and detects voice commands.
- **Multipurpose jack** - Connect the Charger/USB cable (included), and other optional accessories (not included).
- **Power button** - Press and hold to turn the device on or off. Press to lock or wake up the screen. Press and hold to turn the device off or restart it, or for quick access to Airplane Mode.
- **Recent apps button** - Tap to display recent apps or touch and hold to launch split screen view.
- **Speaker** - Plays music and other sounds.
- **Volume key button** - Press to adjust the volume of your device’s sounds and audio.
CSPro basics
Entry applications screen

Entry Applications Screen

Upon opening CSEntry, all data entry applications on the device are displayed. Click on an application to open it. If only one application is on the device, it will open automatically.
Case listing screen

Case Listing Screen

The case listing displays all cases that have already been added to the data file. Clicking on a case will open it for modification. Clicking on "Start New Case," or the icon of a cross in a circle, will add a new case. To delete a case, hard-press on the case until a deletion menu appears. The menu on this screen has options to sort the cases alphabetically, or to display only incomplete cases.
1. Menu button - clicking on the menu button brings up options including show case tree
Screen elements

2. This is the name of the survey
3. Clicking on the pencil and paper icon brings up a screen to type a field-specific note.
4. Clicking on the search icon and typing in a query allows you to filter the response listing
Screen elements

5. The field label is a short description of the field that you are currently entering; for DV/SA it is the question number.
6. This is the question text for the field that you are currently entering.
Screen elements

7. These are the response labels.
8. These are the left and right hand navigation buttons, which correspond to moving forwards or backwards in the data entry application.
User inputs: Text box

To enter data in a text box field, simply type the response using the keyboard. If a keyboard does not appear automatically, click on the field and a keyboard will appear. If your keyboard has a Next key, you can click on it to move to the next field.
User inputs: Radio buttons

When presented with a list of radio buttons, you must select one, and only one, response. Click on the response label, or the corresponding radio button, to make your selection.
User inputs: Check boxes

When shown checkboxes, you can select none, one, or multiple responses. Click on the response label, or the corresponding checkbox, to make a selection. Once you are finished making all selections, you can proceed to the next field.
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User inputs: Search box

After clicking on the search icon, a space will appear where you can type a search query. The list of responses will automatically filter based on your search query. The full text of each response is searched, not necessarily starting from the first letter of the response.
User inputs: Note box

After clicking on the pencil and paper icon, you will have the opportunity to type a field-specific note. If you do not want to add a new note, you can press the Android back button to cancel.
User inputs: Case tree

Clicking on the CS icon brings up the case tree. The case tree displays all fields that have been entered in the data entry application, showing the field label as well as the field response. If you click on a field, you will be taken to that field. This allows you to quickly move from one part of the questionnaire to another. Once the case tree is shown, clicking on the CS icon again will take you up the hierarchy of the data entry application. For example, you might go from seeing details about a person to seeing details about the household. To insert or delete a repeating occurrence, hard-press on the occurrence label until you are presented with a menu that allows for insertions and deletions. You can dismiss the case tree by using the Android back button.
CSPro main functions
Practice as a group

1. Open the data entry application
2. Start a new case
3. Begin to enter data
4. Understand the case tree
5. Use the automated GPS collection button
6. Change an answer entered into the forms
7. See an error message (staffing example)
8. Stop data entry in the middle of a case and partially save
9. Open a partially saved case
10. Open a new case
11. Examine a skip pattern (infrastructure example)
12. Identify a partially saved case vs. a complete case
13. Delete a case (if mistakenly started and saved)
Synchronizing tablets

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CSPro Basics

Synchronizing tablets
Syncing the tablet: Sending Data

1. Make sure your tablet is connected to the WiFi
2. Make sure CSEntry is opened to the Entry Applications screen. Click on the application you would like to synchronize
3. Click on the menu button and choose «synchronize».
4. Tap on Facility_DV_SA to do the actual synchronizing.
5. You may be asked if CSEntry can access a Dropbox account.
6. Example: DV/SA.southsudan@gmail.com
7. Click ALLOW
Syncing the tablet (con’t)

1. Syncing progress will show on the tablet; make sure you get the sync complete message
2. Repeat for each module:
   • Facility DV
   • District DV

**SYNC DAILY!**

1. Ensures data managers can do their job to check the data for completeness and correctness in a timely manner
2. Sends each tablet any updates to the program if errors have been found
Synchronizing the application

• The synchronization we have conducted sends the data from the tablet to the server.
• We may also want to download updates to the CSPro application and lookup files if edits are made.
• To update the application, from the Entry application screen, click on the menu button and select add new. Then select the application you would like to update (if changes have been made it should say new version available)
Open the Data Entry Program

On the desktop, double click on the icon FACILITY_DV_SA.pff
Open the Data Entry Program

• The first time the application opens it will ask you to specify the data file. Click on ok to continue.
Begin entering data

- The question text is located on the yellow top window. For each question a pop-up window will appear. Select your answer by clicking on the radio button.
Fill in the data entry forms: consent

- Fill in all the responses for the cover page. When you get to the consent question a pop up box will open with the text for the consent. Read this to the respondent, then when finished click on the X in the right corner to close this box and return to the data entry application.

- If consent is received from the respondent select “1” for the answer Q015; the next form will open and you can continue entering data for the next section.
Entering data: Error messages

- If you enter an incorrect value you will receive an error message. You will need to correct the error in order to proceed.
Change an answer

- Use the tree on the left to scroll to the question you would like to change. Double click on the question number in the tree and the form on the right should show the question of interest with the cursor in that box. Enter the correct response and hit return to continue. To move forward to the next question, once again use the tree on the left and navigate the cursor to the correct question and double click.
Stop data entry in the middle of a case

- If you are in the middle of filling a form and need to exit the form and the program click on the “X” at the top right end of the form to close it. A pop-up window opens:

- Select “Partial save” to save the data entered. Another pop-up window will open indicating that “The current case has been saved”. Click “Ok” and the data will be saved and the application will close.
Stop data entry

• To stop data entry without closing the CSEntry program, use the stop icon on the menu bar

• “Partial save” to save the data entered. Another pop-up window will open indicating that “The current case has been saved”. Click “Ok” and the data will be saved and the application will RETURN TO THE MAIN MENU.
Finalize an incomplete case

• To complete a case, select it from the main Menu and double click to open.

• A window opens asking if you want to go to the last position. If you would like to navigate to where you left off, click yes. If you click no, you will be taken to the cover page and can use the tree on the left to navigate the case.
Save a case

• To save the record, go to File -> Save partial case. The following pop-up window appears. Click “Ok” to continue the data entry.

• At the end of the form the following pop-up window will appear. Click yes to save the record as a completed record.
Open a new case

• Start the application by double clicking on the icon on the desktop

• In the menu, go to Mode, select “Add case”

• A new form opens and you can begin entering data.
GPS: Purpose

- GPS = Global Positioning System
- At its simplest, a GPS gives its position, in the form of a co-ordinate
- Two main uses:
  1. Information collection
  2. Navigation
     (Where am I? How do I get to...?)
GPS

Coordinate systems: Latitude

**Latitude:**
- Imaginary horizontal lines shown running east-to-west
- Tells you how many degrees north or south of the equator

Equator 0° N/S
degrees North (+ve)
degrees South (-ve)
Co-ordinate systems: Longitude

Longitude:
- Imaginary vertical lines shown running north-to-south
- Tells you how many degrees east or west of the prime meridian

Greenwich (or Prime) Meridian 0º E/W
Equator
West (-ve)
East (+ve)
Co-ordinates of South Sudan

Latitude will be + as the country lies North of the Equator

Longitude will all be + because all of country is East of the Prime Meridian
Where to stand to collect GPS coordinates

• You MUST be outside!

• MOVE TO MAIN ENTRANCE OF THE BUILDING. STAND WITHIN 30 METERS OF DOOR WHERE ENTRANCE IS IN PLAIN VIEW TO THE SKY.
Capturing GPS coordinates

• Automated pick-up of GPS coordinates on the tablet
• We will practice this shortly…
Questions

• What does clicking on the paper and pencil icon in the DV/SA application do?

• True or false: When using radio buttons in the DV/SA to answer a question you can select as many responses as are applicable.

• True or false: When using check boxes in the DV/SA application to answer a question you can select none, one, or multiple responses.

• How often should collected data on the tablet be synched with the national server?

• What does “GPS” stand for?

• True or false: Latitudes are measured in degrees east or west of the Prime Meridian.
• Read the instructions carefully and ask any questions to clarify any points of confusion.
• The instructor will provide you with all the files that you will need to use for this exercise.
• You will work in a small group and at the end there will be a plenary discussion.
• Practice navigating around the CSPro DV/SA data entry application on the tablet. Then practice entering records into the DV/SA data entry application and synching with the server.