

# WORKSHOP ON RECRUITMENT COSTS SURVEY

Survey Solutions: Operationalisation (Designer & Tester)

International Labour Organisation

New Delhi , April 26-27,2018

# Survey Solutions: Designer

- The Designer is a tool to develop questionnaires for the World Bank CAPI platform in a collaborative manner.
- It is an important tool which not only facilitates questionnaires development but also has impact on quality of entire survey process and data collection.
- It helps investigators to get rid of remembering instructions, warnings, skipping patterns etc., which assures quality data collection.

# Designer

- It is a web-based tool to develop multiple questionnaires.
- One person will be the owner and others as well by copying it.
- An user can create a new questionnaire, share, receive shared, copy, convert to PDF etc.
- Allow collaboration of users to work on the same questionnaire just through email invitations, provided user is registered with the Designer.
- Collaborators can edit or view.
- Each of the collaborators can review, comment on questions (indicating potential problems, suggesting improvements, addition, deletion etc.).
- Comments in all sections can be seen in the **comments tool (updated application)**
- Comments can be marked as resolved, but even resolved comments are still recorded with the questionnaire

# About Web Designer

## Advantages of a web designer

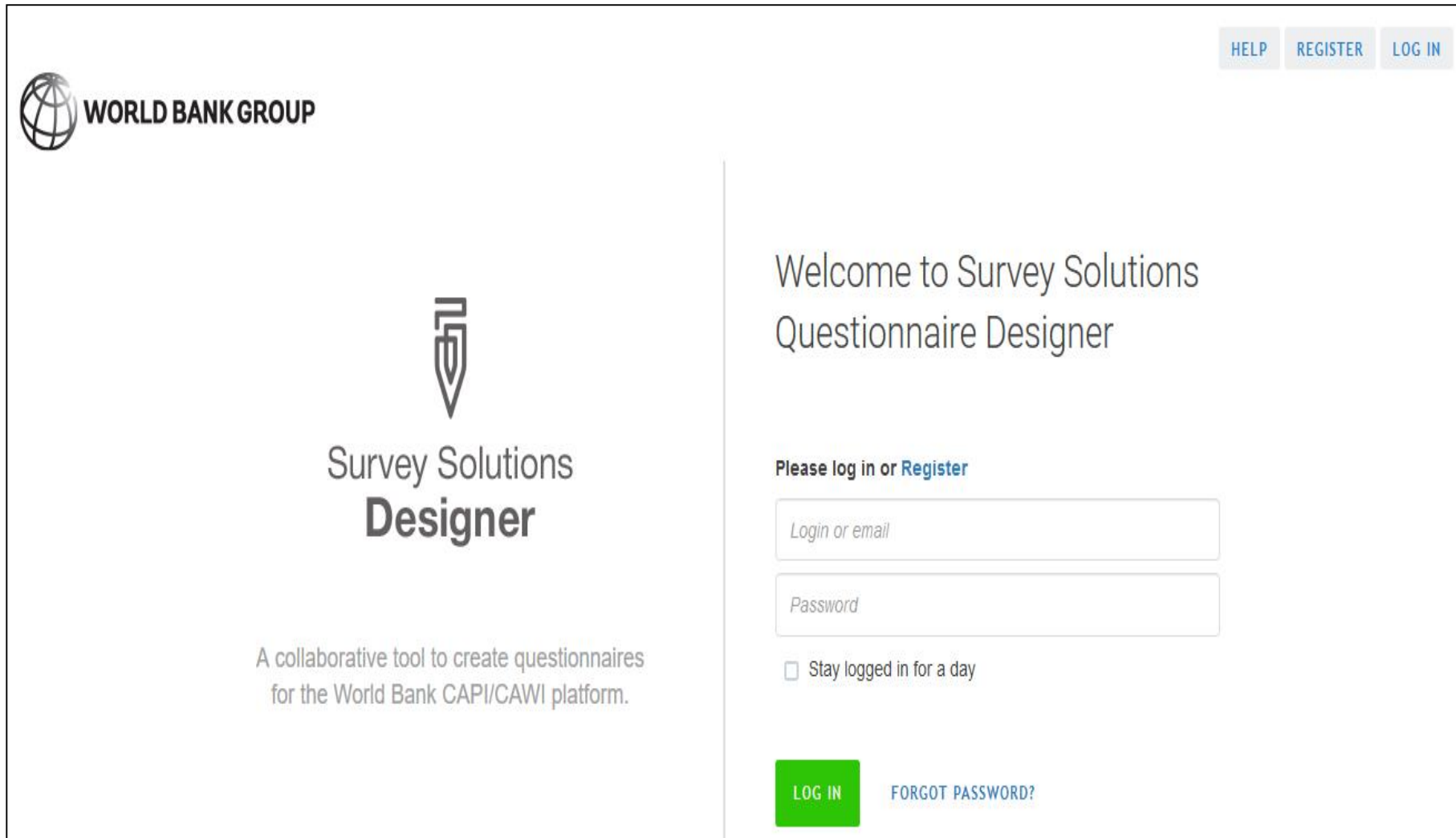
- Facilitates team work
- Remove geographical barriers
- Minimizes risk of losing work
- Benefits from updates and improvements without any installation
- Is available on any device

# Interface Language

Survey Solutions interface language is localized to;

- Chinese
- English
- French
- Portuguese
- Russian and
- Spanish

# Designer Tool (Log In Page)



The screenshot shows the log-in page for the Survey Solutions Designer tool. On the left, the World Bank Group logo is at the top, followed by a stylized pencil icon and the text "Survey Solutions Designer". Below this, it states "A collaborative tool to create questionnaires for the World Bank CAPI/CAWI platform." On the right, there are navigation links for "HELP", "REGISTER", and "LOG IN". The main heading reads "Welcome to Survey Solutions Questionnaire Designer". Below this, a prompt says "Please log in or Register". There are two input fields: "Login or email" and "Password". A checkbox labeled "Stay logged in for a day" is present. At the bottom right, there is a green "LOG IN" button and a "FORGOT PASSWORD?" link.

WORLD BANK GROUP

Survey Solutions  
**Designer**

A collaborative tool to create questionnaires  
for the World Bank CAPI/CAWI platform.

HELP REGISTER LOG IN

Welcome to Survey Solutions  
Questionnaire Designer

Please log in or [Register](#)

Login or email

Password

Stay logged in for a day

LOG IN FORGOT PASSWORD?

<https://designer.mysurvey.solutions/account/login>

# Designer (Log In)

- The user has to have an account.
- Simple registration just requires an email.
- Create a user account, password.
- Functioning supports all operating system (windows, Macintosh).
- Can be explored on Mozilla, Google Chrome, internet explorer.
- Anyone can create an account for project purpose or learning purpose.
- Excellent documentation, help materials, articles, videos etc. to learn.

# Designer Tool: Questionnaires

Questionnaire(s) can be sourced from following three ways;

- **my questionnaire (private)** – only user that created can see it;
- **questionnaire shared with me** - private questionnaire that can be seen by other authorized users;
- **public questionnaire** – any user of Survey Solutions can see the questionnaire (not data)

And create your survey questionnaire;

- **create new (private)** – after clicking the CREATE NEW tab, user requires to title new questionnaire;



# Designer Tool: Questionnaires

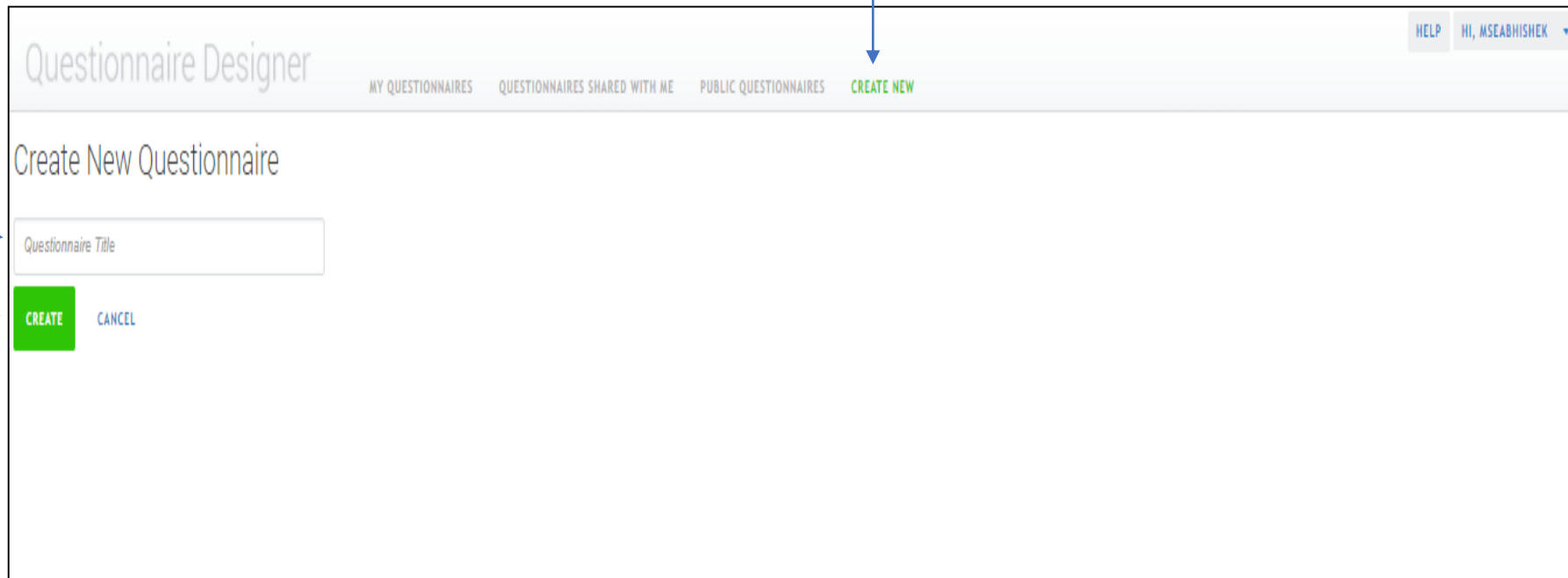
- Question editor screen by clicking questionnaire
- Search Options
- Help option (a file on designer)
- My account (change password/log out)
- It's a good practice to generate pdf or archive (by copying) so user will have track of the changes over the time.

# Designer Tool: Questionnaires

- The public questionnaire provides access to model questionnaires, training models, example instruments, provided resource whose contents can be copied into your questionnaire.
- Title/Sort options Modified on (date), created on (date), created by (ownership)
- 'Earlier my questionnaire' had shared questionnaire option as well.
- Copied questionnaire becomes own by the person who copied. The user can rename the title. The purpose is to use, test, archive, understand, see data export.
- Pdf version useful for survey documentation and sharing to non-Survey Solutions users
- The questionnaires can be deleted.

# Creating a New Questionnaire

1. Click to Create New



The screenshot shows the 'Questionnaire Designer' interface. At the top, there is a navigation bar with the following items: 'MY QUESTIONNAIRES', 'QUESTIONNAIRES SHARED WITH ME', 'PUBLIC QUESTIONNAIRES', and 'CREATE NEW'. The 'CREATE NEW' link is highlighted in green. A blue arrow points from the text '1. Click to Create New' to this link. Below the navigation bar, the main heading is 'Create New Questionnaire'. Underneath, there is a text input field labeled 'Questionnaire Title'. A blue arrow points from the text '2. Title it' to this input field. Below the input field, there are two buttons: a green 'CREATE' button and a blue 'CANCEL' button. A blue arrow points from the text '3. Click to Create' to the 'CREATE' button. In the top right corner of the interface, there is a 'HELP' button and a user profile indicator 'HI, MSEABHISHEK' with a dropdown arrow.

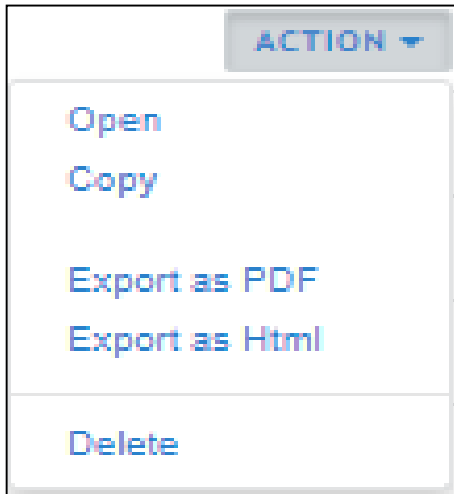
2. Title it

3. Click to Create

- Title is mandatory
- Automatically it navigates to a new window, can call it designer window

# Designer Tool: Functions

- Action available for my questionnaires, shared questionnaires and public questionnaires
- Delete option is available for my questionnaires only
- User can't delete shared and public questionnaires



# Designer Tool: Functions

It tells user **questionnaire title**,  
**number of questions**,  
**sections in questionnaire**,  
**number of rosters**  
**compile** (to check errors, if any  
while developing a questionnaire)  
and **test** to web test of  
questionnaire

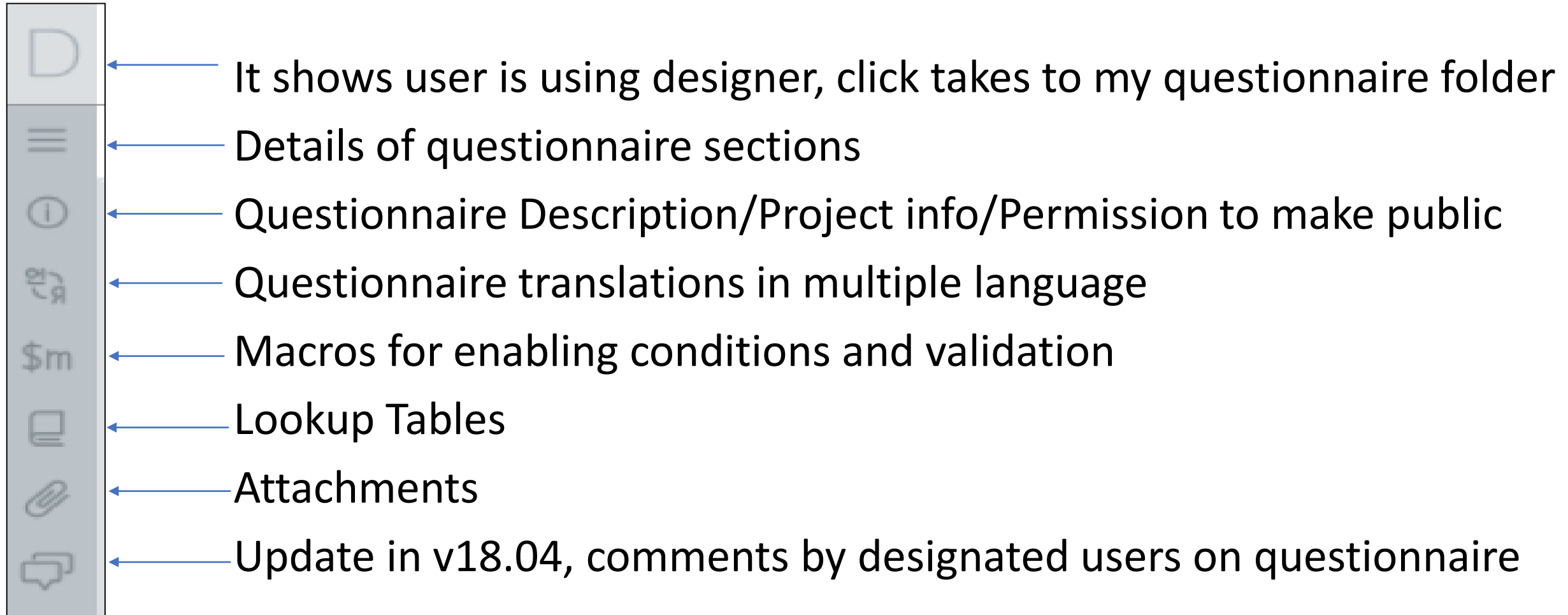
Migration Cost Training

(16Q, 2S, 4R)

COMPILE

TEST

# Designer Tool: Functions



# Designer Tool: Sections

- Add as many sections a questionnaire needs to be developed or explained
- The user may open, copy, paste it to a new section or delete a section in this
- May add sub-sections
- Sections within section
- The user may drag a section up and down
- Clicking on a section navigates to questions within that section

# Designer Tool: Sections

- Users may provide survey/project info such as study types, kind of data, mode of data collection, notes etc.
- A checkbox to make questionnaire accessible to public
- All project information can be updated



# Designer Tool: Translations

- One of the important property of the Designer
- It helps to manage original questionnaire translation in native languages or language of researchers choice
- Process: develop a questionnaire
  - download questionnaire in excel.xlsx format
  - fill the excel fields under translation heading in new language
  - upload it

# Designer Tool: History Tab

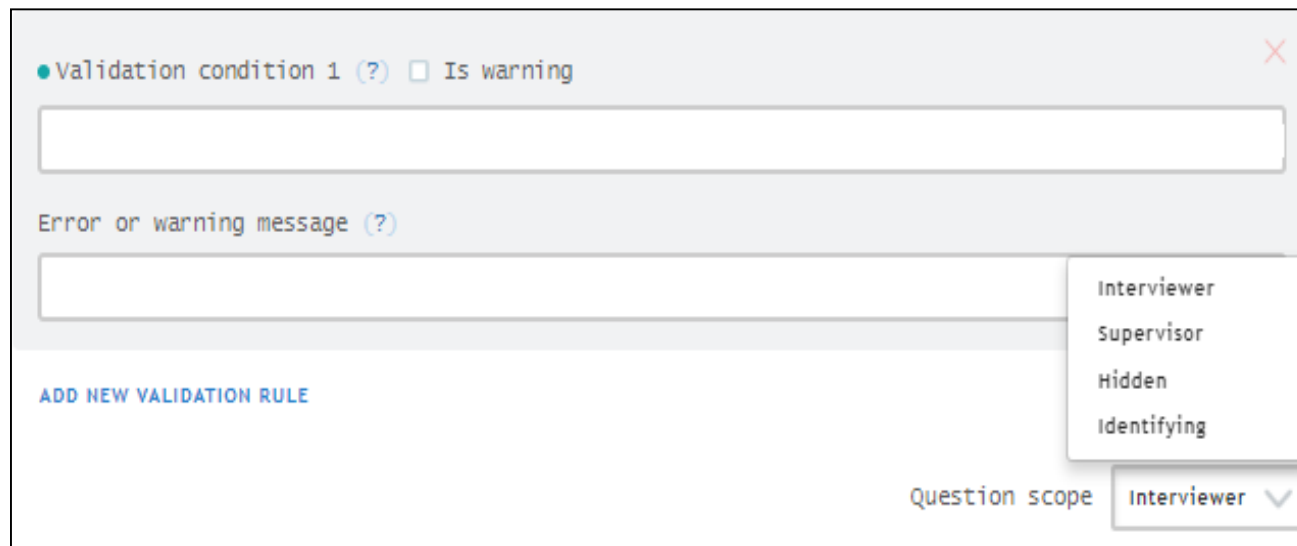
History Tab in the Designer is another important property of questionnaire development. It helps in;

- track its origin/original author/copied from...
- change in title and changes in questionnaire
- shared to information (show email id)
- addition of static texts, questions, attachment etc. and
- revert/undo changes made in past

# Designer Tool: Questions Scope

The question scope is requested for all the questions i.e. who is going to answer this question;

Possible options are interviewer, supervisor, hidden and identifying;



The screenshot shows a configuration window for a validation rule. At the top, it says "Validation condition 1 (?)" with a help icon and a checkbox for "Is warning". Below this is an empty text input field. Underneath is the label "Error or warning message (?)" followed by another empty text input field. At the bottom left, there is a link "ADD NEW VALIDATION RULE". At the bottom right, there is a "Question scope" dropdown menu currently set to "Interviewer". A context menu is open over the dropdown, listing the options: "Interviewer", "Supervisor", "Hidden", and "Identifying".

# Designer Tool: Questions Scope

By default, the question's scope is interviewer.

If the scope is *interviewer*, the answer to this question must be collected by interviewer.












If the scope is *supervisor*, interviewer will not be able to see it. Supervisor and/or headquarters can fill the information once interviewer collects the data for other questions and upload it.

*Hidden* scope is used for the purpose of validation. The values must be uploaded before the survey starts.

*Identifying* scope is used by headquarters for identification, navigation (map reports) and selection purposes. It is done at the time of assigning the task.

# Designer Tool: Question Formats

- It is possible to capture data in multiple formats. These formats are inbuilt in the Designer.
- Currently, the Designer supports 12 formats (exhaustive list for any survey).
- Different formats have different properties.
- Users/researchers need to select a format at the time of developing questionnaires.
- Formats can be changed at any time even after piloting a survey (may induce changes in format properties).

	Categorical: Single-select
	Categorical: Multi-select
	Numeric
	Date
	Text
	GPS
	List
	Barcode
	Picture
	Audio
	Area

# Numeric Questions

Use of numeric answers to perform;

- mathematical operations (addition, mean, median, rounding etc.)
- calculate derive indicators, volume, price, quantity etc.

In the Designer;

- It expects an answer to contain numeric characters (0-9), can be an integer or a real number. Default, it expects an integer answer
- Option of assigning the number of decimals places to be accepted
- Formatting the answer to language-specific thousands and decimal separator
- Interviewer will not be able to enter text into such a field (tablet will show only numeric keyboard)

# Numeric Questions

Question type

12 Numeric ▼

Integer

Use 1000 separator (?)

Number of decimal places

What is your age in years?

What was your gross annual income last year?

×

What is your current weight in kilograms?

# Numeric Questions

Question type

12 Numeric

Variable name(?)

Variable label(?)

Question text

Integer

Number of decimal places

Use 1000 separator (?)

ADD SPECIAL VALUE

SHOW STRINGS



# Numeric Questions

In updated version, numeric question has been enhanced with special values

The screenshot shows the configuration interface for a numeric question. It includes a dropdown menu for 'Question type' set to '12 Numeric', a text field for 'Variable name(?)' containing 'wage', and a text field for 'Variable label(?)'. The 'Question text' field contains 'What is your wage in USD?'. Below this, there are checkboxes for 'Integer' (unchecked) and 'Use 1000 separator (?)' (checked), and a 'Number of decimal places' field set to '2'. At the bottom, there is a table of special values:

-990	Same as last month	✗
-991	Minimum wage	✗

Buttons for 'ADD SPECIAL VALUE' and 'SHOW STRINGS' are also visible.

The screenshot shows the user interface for the question 'What is your wage in USD?'. It features a large text input field with the placeholder text 'Tap to enter decimal'. Below the input field, there are two radio button options: 'Same as last month' and 'Minimum wage'. The 'Minimum wage' option is selected, and there is a close button (✗) next to it.

On a tablet, either a value should be entered, or one of the provided options may be selected (but not both).

# Text Questions



Use of text answers;

- answers to text questions are captured as text
- can be alpha characters, alphanumeric characters, special numeric characters, basic punctuation, symbols and spaces
- household address, the name of the respondent, household members, date, ID cards, phone number, flight tickets, identity cards, PAN card, date, etc.
- some texts can be changed to numeric

In the Designer;

- investigators need to type answer
- developers can pre-specify a pattern in data capturing while designing

# Text Questions

Question type	Variable name(?)
<input type="text" value="AB"/> Text 	 <input type="text"/>
Variable label(?)	
<input type="text"/>	
Question text	
<input type="text"/>	
Pattern (?)	
<input type="text"/>	

# Text Questions (Pattern)

Questionnaire designer can fix a pre-defined text pattern.

Advantages:

Analysis team receive data (exported data) in standard format.

It reduces data cleaning efforts.

Text variables can be analyzed easily.

Disadvantages:

It is possible that respondents may answer in different format, enumerators may take time to change it in desired format.

Need well trained enumerators to fill it.

Interview may get blocked

Synchronization problem may occur

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# Text Questions (Pattern)

Patterns	Represent
~	One alpha character (A-Z,a-z)
#	One numeric character (0-9)
*	One alphanumeric character (A-Z,a-z,0-9)
##/##/####	Date
(###)-###-####	Phone number
AA####	Flight number
~*-###-~###	Id code

# Text Questions (Pattern)

## Examples

Pattern	Question on the tablet	Blank	Data Exported
<i>var(id_code)</i>	<i>var(id_code)</i>	<i>var(id_code)</i>	<i>var(id_code)</i>
UY~* -###-~###	UY__ - ___ - _____		UYA3-583-D251
<i>var(address)</i>	<i>var(address)</i>	<i>var(address)</i>	<i>var(address)</i>
#### xyz st.	_____ xyz st.		1234 xyz st.

# Single-select Questions

Single-select questions;

- one answer from a list of possible categories
- also called categorical: single-select questions
- Interviewers don't see the codes

In the Designer;

- can be default single select (simplest)
- options can be added once a time or by copying and pasting them from a document
- combo if there are a large number of categories (countries in the world, industries code, hhs members occupation etc.), upload a tab delimited file containing categories
- Linked to the previous question
- cascade combo & Filter



# Single-select Questions

Question type:  Variable name(?):

Variable label(?):

Question text:

0	Never married	×
1	Currently married	×
2	Divorced	×
3	Separated	×
4	Widow(er)	×
6	Other	×

[ADD OPTION](#) [SHOW STRINGS](#)

Filter:

Cascading combo box  Combo box  Is linked

# Multi-select Questions

Multi-select questions;

- one or more answer from a list of possible categories
- also called categorical: multiple-select questions

In the Designer,

- can add options before interview by adding one by one or copy-paste
- while interview user can add by linking to previous questions, roaster etc.
- can restrict maximum number of answers
- answer orders can be preserved example: like best two, best two holiday destinations, investment in financial instruments, etc.

# Multiple-select Questions

Question type  
 Categorical: Multi-select

Variable name(?)

Variable label(?)

Question text

1	Expedite passport process	✗
2	Expedite local government clearance process	✗
5	Forged official documents - birth certificates, passport, work permit etc.	✗
88	Others	✗
99	Don't know/ Decline to answer	✗

[ADD OPTION](#) [SHOW STRINGS](#)

Filter

Record answer order

Max number of answers

Yes/No mode

Is linked

# Categorical Question – Other (specify)

If respondent answers 'other' to categorical questions, there must be an additional question to cover 'other' answers.

The additional question must be linked to the option 'other' in previous question.

The additional question must be a text question and interviewer has to type verbatim.

The additional question will be disabled for rest of the categories.

# Date Questions

Date answers can be recorded in two ways depending on questions.

- In case of capturing the date of birth, year of last migrated etc. types questions, tap on the answer box, a Gregorian calendar pops-up
- set the appropriate date on the calendar (interviewer has to set it)
- the format would be (mm/dd/yyyy)
- calendar format would be specific to device

## Current Date

- current date checkbox gives the option of recording current date
- tap to answer box for a few seconds to record it

# GPS, Barcode, List Questions

A GPS question records the location of user's tablet.

- The tablet should be GPS-enabled.
- GPS records geographical coordinates such as latitude, longitude, accuracy, altitude and timespan
- connectivity is mandatory

A Barcode question reads optical machine-readable data relating to an object.

- Ex: Price barcode, system barcode, the barcode on a flight ticket etc.

A list question a list of answers. Example: HH members, children below 6 years in hh, number of migrants from village/block X etc. The number of list elements can be restricted.

# Picture Questions

Picture question can be used for two purposes.

- To take a picture of an object

Example: respondent's picture, house picture in housing conditions survey etc.

- To capture a signature, check the checkbox.

Example: respondent signature, verification signature, e-commerce product delivery persons take signatures etc.

# Audio Questions

Audio question;

- records voice of respondents using tablet's microphone.
- captures start and end of voice conversation between interviewer and respondent.



# Variable name & label (thumb rules)

- In Designer, a variable name (chosen by questionnaire developer) should be 1-32 characters long (ex: “income” is 6 characters long, hh\_income is 9 characters long and year\_2011 is 9 characters long).
- A variable name must contain only a-z, A-Z, 0-9 and ‘\_’
- First character cannot be 0-9 or \_ and last characters cannot be \_
- A variable label, a text form, is up to 80 characters and can be seen in exported data.

# Static Texts

Static text;

- It is not a question
- Interviewers use it for reference
- Picture (upload using attachment) can be added to static texts
- May use as reference for respondent
- Users may use text substitution to reference questions and user-defined or system-defined variables in the text (need to enclose the variable name or question name with the percentage sign (%))
- A static text is not exported in data

# Questionnaires in multiple languages

- **Improved multi-language features** PDF export of questionnaires can be created for each user-defined translation of the questionnaire. Default language for a survey can be set in advance.
- Questionnaire can be seen in html form



# Questionnaire in Pdf form

## MAIN

Name	TEXT SCOPE: IDENTIFYING  .....	name
Arriving from which country?	SINGLE-SELECT 01 <input type="radio"/> Qatar 02 <input type="radio"/> Saudi Arabia 03 <input type="radio"/> Other	country
Working in construction?	SINGLE-SELECT 01 <input type="radio"/> Yes 02 <input type="radio"/> No	construction
Year of last migration. E1 migryear.InRange(1960,2015) M1 Wrong year	NUMERIC: INTEGER  -----	migryear
Are you willing to answer the extended questionnaire? E (migryear>=2011) && (construction==1) && (country.InList(1,2))	SINGLE-SELECT 01 <input type="radio"/> Yes 02 <input type="radio"/> No	consent
What is your address and contact number? E consent==1	TEXT  .....	address

# Questionnaire on tablet

11:20 AM




Copy of KNOMAD Listing E...  

**Name**

*Tap to enter text*

**START**

11:20 AM

 Main  

**Arriving from which country?**

Qatar

Saudi Arabia

Other

**Working in construction?**

Yes

No

**Year of last migration.**

*Tap to enter number*

# Questionnaire on tablet

11:22 AM

☰ Main ↕ ⋮

**Working in construction?**

Yes

No

**Year of last migration.**

*Tap to enter number*

**Are you willing to answer the extended questionnaire?**

**What is your address and contact number?**

**TO COMPLETE SCREEN**

11:26 AM

☰ Complete ↕ ⋮

**You are about to complete this interview**

QUESTIONS STATUS

<b>5</b> Answered	<b>1</b> Unanswered	<b>No</b> Error(s)
----------------------	------------------------	-----------------------

NOTE FOR SUPERVISOR

Please verify the listings.

**COMPLETE**

AFTER YOU FINISH THIS INTERVIEW IT WILL BE MARKED AS COMPLETED AND WILL BE UPLOADED TO SUPERVISOR DURING YOUR NEXT SYNCHRONIZATION

# Logical operators

Logical operators for enablement conditions:

Logical operator	Description	Type of questions
>	Greater than	Numeric and Categorical one answer
<	Less than	Numeric and Categorical one answer
==	Equal to	Text, Numeric and Categorical one answer
!=	Not equal to	Text, Numeric and Categorical one answer
>=	Greater than or equal to	Numeric and Categorical one answer
<=	Less than or equal to	Numeric and Categorical one answer
&&	And	
	Or	
!	Not	

- To refer to answer of a question, specify the variable name corresponding to that question, like: age, sex, edu\_level etc.
- To compare strings, enclose string categories in quotes, like: city == "New Delhi"

# Enabling and Validation Conditions

Instruction (?)  Hide instruction (?)

● Enabling condition (?)  Hide if disabled (?)

● Validation condition 1 (?)  Is warning ✕

Error or warning message (?)

● Validation condition 2 (?)  Is warning ✕

Error or warning message (?)

[ADD NEW VALIDATION RULE](#)



# Validation and Warnings

● Validation condition 1 (?)  Is warning ✕

`self<=100.0`

Error or warning message (?)

`Warning! The wage is rather high!`

● Validation condition 2 (?)  Is warning ✕

`self>0`

Error or warning message (?)

`Error! The wage must be positive!`

[ADD NEW VALIDATION RULE](#)

# Comments in Designer

## Comments in designer

- An important component of the Designer component
- A questionnaire can be shared by inviting users from the questionnaire's settings dialog
- Collaboration can be established through email invitation (provided they are registered on Survey Solutions Designer)
- An essential tool for collaboration of multiple users working on same questionnaire
- Major stakeholders/authorized may track questionnaire developments
- Each of the collaborators (those have a shared access) may review, comment, suggest a change in questionnaire and leave it to original author
- Full access as edit permission and partial as only view permission
- Resolve will automatically show in comment window

# Comments in Designer

Question type: ☰ Categorical: Single-select ▾ Variable name(?): # HHMarital

Variable label(?): Marital Status

Question text: What is %rosteritle%'s marital status?

0	Never married	✕
1	Currently married	✕

SAVE CANCEL HIDE COMMENTS DELETE MOVE TO ▲

*mseabhishek@gmail.com* April 23, 2018 2:32 PM RESOLVE  
do we need to keep living together option?

*mseabhishek@gmail.com* April 23, 2018 2:34 PM RESOLVE  
is this question important in this project?

*mseabhishek@gmail.com* April 23, 2018 2:35 PM RESOLVE  
I suggest to remove it?

New comment (?):

0 / 1000

ADD COMMENT

1 Comment thread:

☰ What is %rosteritle%'s marital status? HHMarital

*mseabhishek@gmail.com* April 23, 2018 2:35 PM  
I suggest to remove it?

*mseabhishek@gmail.com* April 23, 2018 2:34 PM  
is this question important in this project?

*mseabhishek@gmail.com* April 23, 2018 2:32 PM  
do we need to keep living together option?

# Comments in Designer

## Interviewer Comment

- It must be noted that an interviewer may comment on any question by pressing the question.
- An entry bar will appear where the interviewer can write a comment.

# Interviewer Instructions

- Any question may contain instructions for interviewer like how to ask this question, need to probe more, etc.
- Instructions are shown above question if 'hide instruction' checkbox is unchecked or will display after clicking show instruction text.
- It is different from static text.

# Shortcut Keys

Keyboard Shortcuts	
<b>?</b>	Show / hide this help menu
<b>ctrl + p</b>	Print
<b>ctrl + b</b>	Compile
<b>⌘ + alt + x</b>	Focus questionnaire tree
<b>⌘ + alt + e</b>	Focus title field in editor
<b>←</b>	OpenSection
<b>ctrl + h</b>	Find and replace
<b>→</b>	Close sections
<b>ctrl + m</b>	Close macros panel
<b>ctrl + l</b>	Close lookup tables panel
<b>ctrl + ⌘ + a</b>	Close attachments panel
<b>ctrl + ⌘ + t</b>	Close translations panel
<b>ctrl + i</b>	Close metadata panel
<b>ctrl + alt + c</b>	Close lookup tables panel
<b>↓</b>	Navigate to next sibling
<b>↑</b>	Navigate to previous sibling
<b>ctrl + f</b>	Search for sub-sections and questions in section
<b>enter</b>	Open item in editor
<b>ctrl + s</b>	Save

# Tester

Tester application is used

- to enter data in answer field and evaluate the performance of questionnaire
- to test the questionnaire design, text structure, question types, enabling conditions
- to test the questionnaire (conditions, skip patterns, validations, warnings etc.)
- to view questionnaires on tablet or supporting device such as smartphone
- not used for actual data collection

# Tester Application

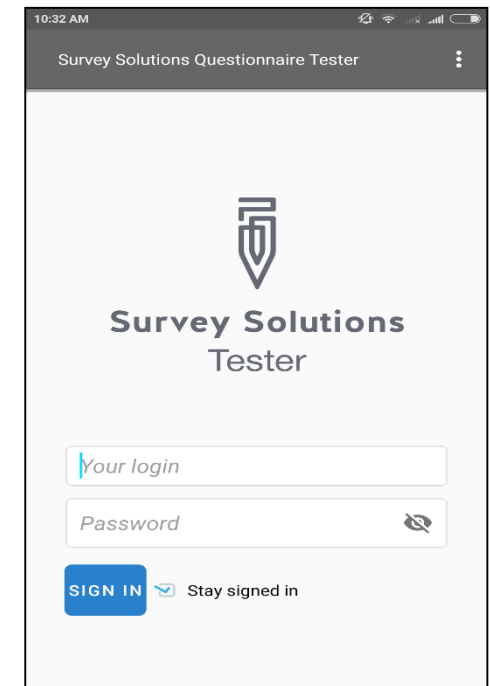
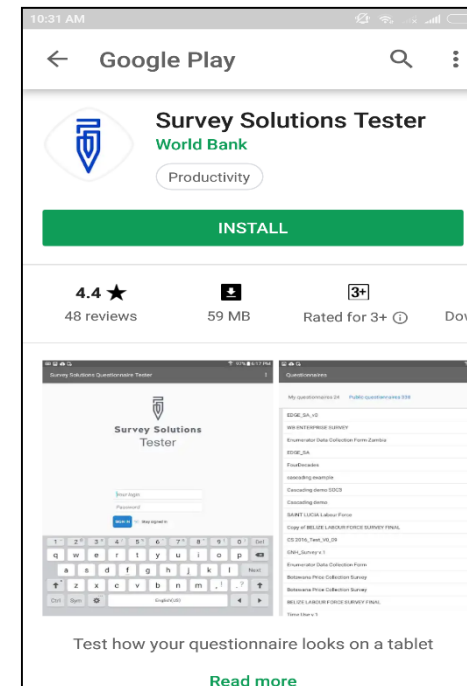
- Tester is an Android application
- User may download Tester from Google Play Store

Open Google Play Store

Search Survey Solutions Tester

Install it

- Tester on Google Play Store – Screenshot1
- Tester on Tablet or Smartphone – Screenshot2





# Tester Application

- Login using Designer credentials (user name and password)
- It will navigate to new window, where user may see “My Questionnaire” and “Public Questionnaire”
- Synchronized to upload latest questionnaire
- User can't synchronized questionnaire with error(s) in Tester, s(he) may see only error free questionnaire on Tester;
  - user may see Public Questionnaires
  - user may copy a public or shared questionnaire and own it
  - open error free or owned questionnaire to see in Tester