

PPOL 6818 - Spring 2025 - Week 6
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Coding in SurveyCTO

Georgetown University Initiative

guide²

on Innovation, Development and Evaluation

Code in SurveyCTO

Let's code that survey



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SurveyCTO : Coding Process

1. **Set up your survey Google Sheet**

- a. Add a Cover Sheet tab, add a Changes Log tab
- b. Check the formid in the Settings tab

1. **Upload and test your survey regularly**

- b. Debug from the SurveyCTO error prompts
- c. Test coding from the SurveyCTO testing interface

1. **Use help**

- c. Help tabs of your survey Google Sheet
- d. SurveyCTO help: <https://gui2de.surveyccto.com/help.html>

Set up your survey Google Sheet

1. TAB: SETTINGS

- Change form title and ID
- Version control (keep as default)
- Default language (for forms in several languages)

1. TAB: SURVEY

- Understand default variables
- Define new questions
 - Variable type
 - Label
 - Relevance
 - Constraints

1. TAB: CHOICES

For the select_one and select_multiple var types

1. Add two TABS: Cover Sheet, Changes Log

Example Cover Sheet

Include the
codebook/standard
codes and links

Include a list of modules and their sources (separate sheet or same sheet)

[illegible]

Example Changes Log

Date	V	Changes	Point person
7/31/2019	4	<i>Version downloaded for translation</i>	
7/31/2019	5	Added images for lab games Removed the pullin data from IRC. Moved demographics + contact questions after consent. Implemented Stanley's feedback. Deleted: follow up on parents (if not own), other animal products. Changed egra test to swahili.	Beatrice
7/1/2019	5	Feedback from supervisors: deleted from food product questions; made networks business specific questions conditional on having a business; enforced some skip patterns; changed all "last month" by "last 30 days"	Beatrice
8/5/2019	5	Added some timestamps before pilot; simplified lab games	Beatrice
8/9/2019		<i>Pilot</i>	
8/13/2019	6	Implemented changes based on pilot feedback; deleted unnecessary choices list; enforced the impossibility to select "none of the above" with any other option for all select multiple; added back the ID type and number questions, the questions about receiving other IRC services (respondent or hhm)	Beatrice
8/13/2019	6	Made all questions required	Beatrice
8/13/2019	6	Added swahili translations	Beatrice
8/15/2019	7	Consent form picture; feedback from Alex on 8/13/2015; deleted detergent from consumption (same word as swahili); new swahili translations; clarified consumption = buy	Beatrice
8/15/2019	7	IRC registree database integration (56 first cases)	Beatrice
8/15/2019	7	<i>Baseline launch</i>	
		Added choices options starting in 10x (literacy, industry, consumption units) Decimals for consumption <u>Changed clientid to caseid (kept clientid with relevance 0)</u> Added row number in Q label	

Default variables

Those variables automatically appear at the beginning of the Excel form definition and shouldn't be deleted. They won't show up to enumerators (hidden field) but will be useful for data collection monitoring.

start	starttime	record the date and time the survey was started
end	endtime	record the date and time the survey was ended
deviceid	deviceid	record the unique ID of the device used to fill out the survey
subscriberid	subscriberid	record the subscriber ID associated with the device's SIM card, if any
simserial	simid	record the serial number associated with the device's SIM card, if any
phonenumber	devicephonenumber	record the phone number associated with the device's SIM card, if any
username	username	record the username of the user filling out the form
caseid	caseid	record the unique ID of the case for which the form was filled out

All forms also come with three [HELP TABS](#) (one for each tab) describing in details each variable type, syntax, operations, etc.

Main variable types

- note
- text
- integer, decimal
- select_one, select_multiple
- datetime, date, time
- image (also: audio, video, file) – incl. pictures ('new') and signatures
- barcode
- calculate

Pull data dynamically

- **From a previous answer to this survey**
 - A direct answer or a calculate field
 - To display in another question or to use in a constraint or relevance option
 - Using **`${var}`**
- **From an external dataset**
 - To pull a list of choices in a select_one or select_multiple dataset
 - Function : search()
 - Filter down the search() based on previous answers

Constraint, relevance, and other options

- **Constraints** to limit the possible range of answers
 - Tailor constraint error message
- **Relevance conditions** to establish skip patterns
 - Can be combined with groups
 - One trick: “required” notes with certain relevance conditions
- Other **options**
 - Hint to give more explanations about the question (italic, subtitle)
 - “Required”
 - Appearance
 - Media to add files

Group and repeat groups

- Group questions for
 - Skipping patterns (relevance condition on the group)
 - Appearance options (several questions on the same screen)
 - field-list
 - list-nolabel
 - Nested groups are OK: they follow the following structure □
- Repeat groups
 - When a set of question is repeated a n number of times, but n is not known in advance (depends on a survey answer), e.g. household roster
 - Calculate fields specific to repeat groups
 - index()
 - indexed-repeat(repeatedfield, repeatgroup, index)
 - AVOID nested repeat groups



Calculate fields

- Hidden fields to the enumerator
- Proper variables in the survey (like survey questions)
- Used most often when
 - Creating intermediate variables for complex constraints, relevance conditions
 - Pulling data from other datasets
 - Generating random numbers
 - Using automatic random audits

Operations and expressions

Details are in the **help-survey** tab of the form. NOT the Excel syntax.

- Arithmetic: `+` | `-` | `*` | `div` | `mod` | `=` | `!=` | `>` | `>=` | `<` | `<=`
- Logic: `and` | `or` | `not()`
- Functions (not exhaustive): `pulldata()` | `string-length()` | `coalesce()` | `min()` | `substr()` | `round()` | `regex()` | `if()` | `int()` | `date()` | `once(random())`

`${var}` to refer to the question *var* in this form (can be replaced by `.` if we're in that same line)

NB resource to debug regex: <https://regex101.com/>

Free tips

- Groups and repeat groups
 - automatically fill out the label for the end line from the label for the begin line
- Use Excel functions for efficiency
 - filter questions by type
- Variable names
 - Start and end with a letter
 - Only letters, numbers, underscore (_)
 - Reverse english order
 - Less than 30 characters (Stata)

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