

Leading a Data Driven Project

Unit 9
Working draft

Nepal Data Literacy Program, 2019

Organized by



Supported by



Modules of the Unit

- **Module 1:** Overview of data collection: Understanding definitions, types of data, why and cases for data collection; Examples of data collection projects.
- **Module 2:** Introduction to Data collection: Steps to carryout a project and setting up the right team.
- **Module 3:** Methodology and Survey design: Data privacy, sampling, and survey design
- **Module 4:** Tools for data collection: Google form, Open data kit, Kobo toolbox and lab on building your survey using one of the tools.

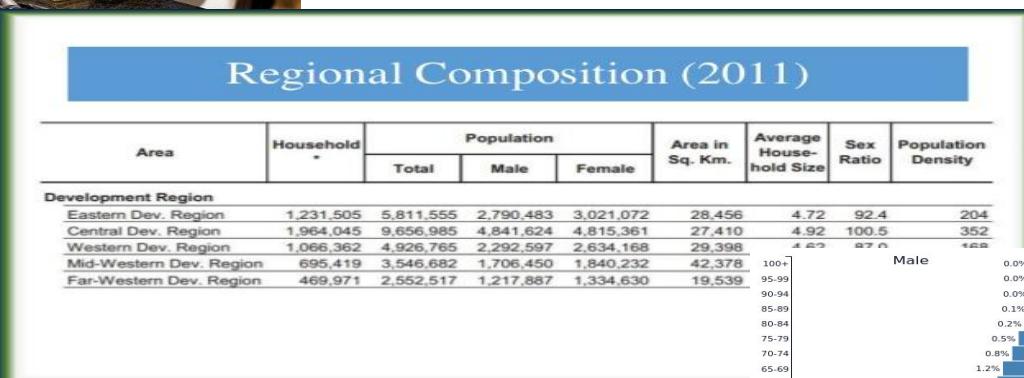


Module 1

Introduction to Data Collection



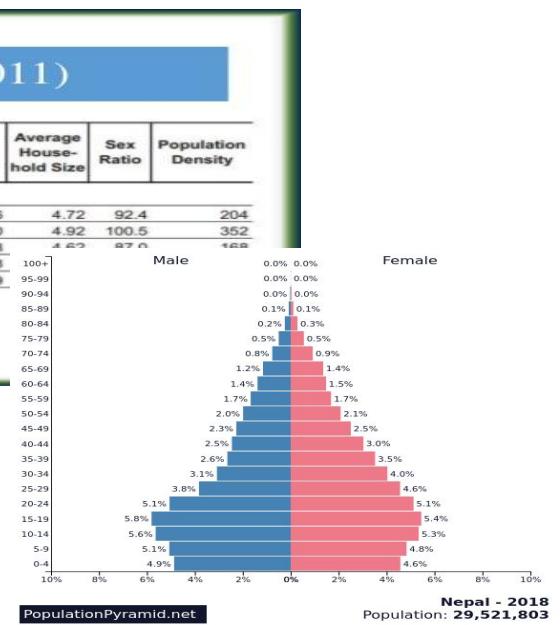
Data Collection



Dataset

Data Visualization, Machine learning.

Source: <https://www.populationpyramid.net/nepal/2018/>



Common Data Types

Qualitative data is everything that refers to the quality of something: A description of hair and eye colours and names.

Quantitative data is data that refers to a number. In the case of a baby, the age, height, weight etc are all examples of this.

Discrete data is numerical data that is counted in whole numbers: e.g. the age of a child can only be whole numbers, there is no such thing as 0.5 years).

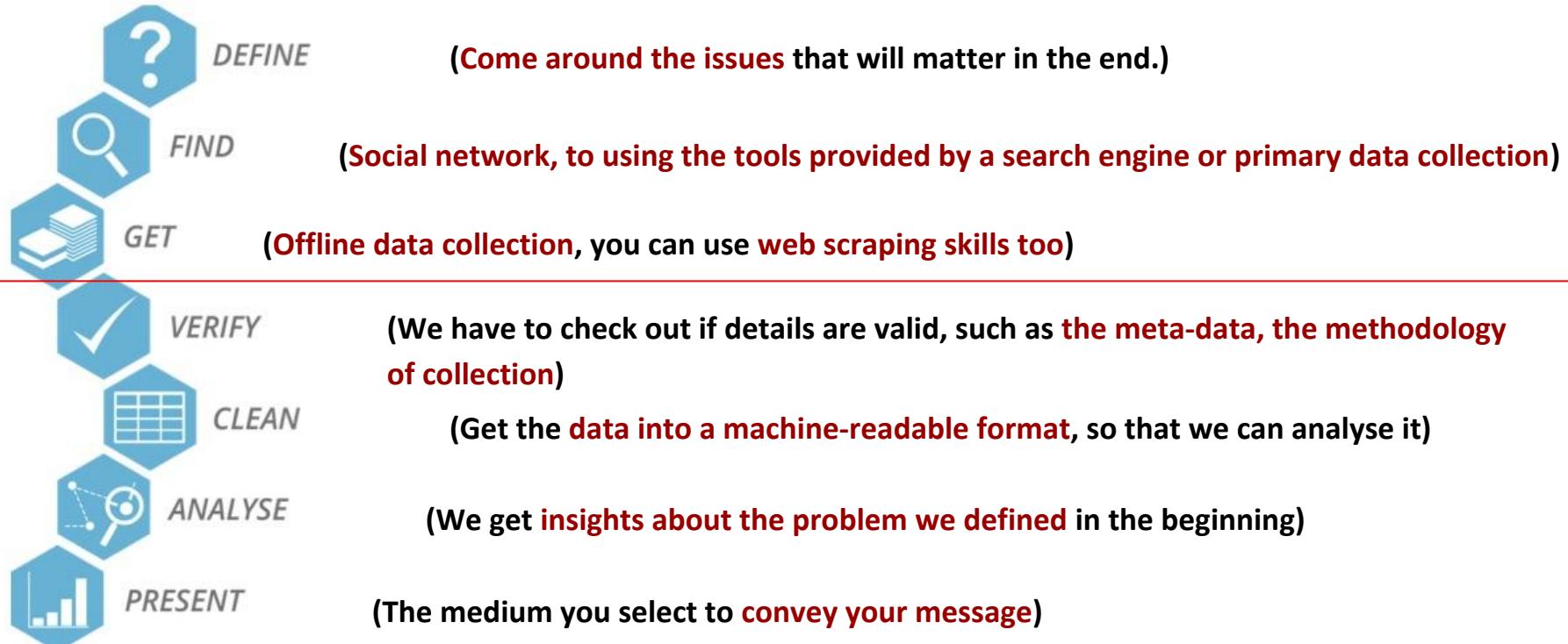
Continuous data is numerical data with a continuous range: such as the weight of the child which can be any value (4.5 kg, 4.57 kg or 4.579 kg).

Categorical data puts the item you are describing into a category: In our example the gender “male” or “female” would be categorical

Ordinal data is categorical data for which the possible values are ordered. Eg. education levels - elementary school, middle school, high school, college.

The Data Pipeline

A framework for working with data from beginning to end



Data collection components of the pipeline:

Define:

- It's in this stage you start asking questions.
- Which in turn helps you scope your project: **is the data needed available? Or will I have to invest resources to collect it?**

Find/Get:

- You can leverage tools and techniques ranging from search engines, open data portals to find secondary data.
- Or carry out a data collection project to collect new primary data or **compliment existing secondary data.**

What is Data Collection?

What is Data Collection?

Data collection is the process of gathering and measuring variables of interest, in an established systematic fashion that enables one to answer stated research questions, test hypotheses, and evaluate outcomes.

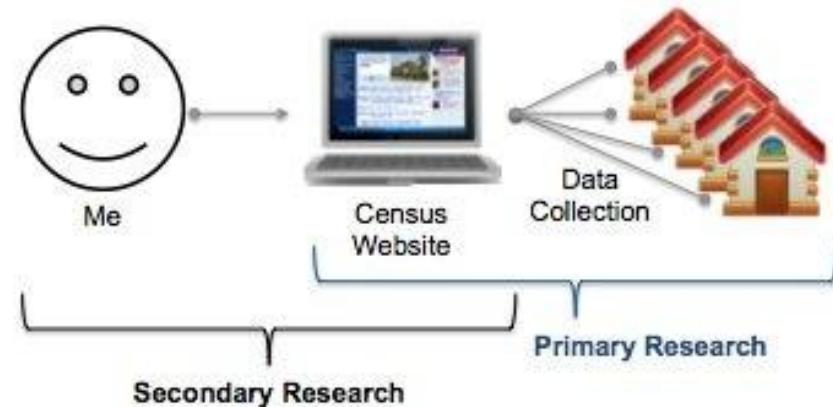


Source: [Office of Research Integrity \(U.S Department of Health and Human Services\)](#)

Source: [Pixabay](#)

Classification of Data

- Primary data: This is data collected by the enumerator, investigator or researcher.
- Secondary data: This is data obtained from a 3rd party who has already invested in data collection or production exercise.
- A combination of both can be used for a data collection project



Source: <https://www.mymarketresearchmethods.com>

Advantages and Disadvantages of Primary Data

Data is collected either through quantitative or qualitative methods carried out by observations, interviews or questionnaires.

Advantages:

- Data is collected for the specific purpose for which it is needed.
- Enumerator is sure about the quality and integrity of the data.
- It is raw and real time data.

Disadvantages

- It can be an expensive exercise and time consuming.
- There is a lot of commitment to ensure a high standard and quality of data.

Advantages and Disadvantages of Secondary Data

This kind of data is found in portals, data repositories, websites, research, books, e.t.c.

Advantages:

- **It is already existing data**, so the challenges of primary data collection has been avoided.
- It is cheaper and the user bears little responsibility for the data standard/quality.

Disadvantages:

- You are at the mercy of the collector and can not fully ascertain the **data quality**. You have to rely on the **credibility and reliability** of the source.
- You are not at liberty to determine what has been collected or the sample size beside what has been shared. You are **limited to what you have**.

Example of Data Collection projects 1: Clean Up Nepal

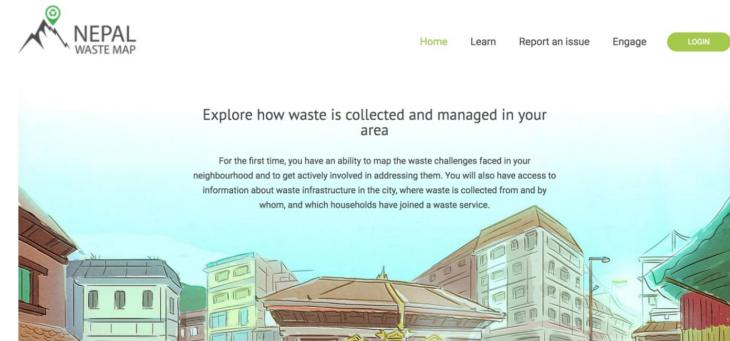
- They faced the challenge of unavailable data and leveraged technology to collect citizen generated primary data.
- They used mobile based collection tool KoBo Toolbox to collect data on waste infrastructures, waste company profile, GPS routes and illegal waste dump sites.
- This resulted in the development of Nepal Waste Map - Providing citizens living in Nepal the ability to report waste dumping, waste burning and littering sites throughout the country.

Use of data & technology for promoting waste sector accountability in Nepal

Technologies behind Nepal Waste Map



Saroj Bista [Follow](#)
Mar 27, 2018 · 8 min read

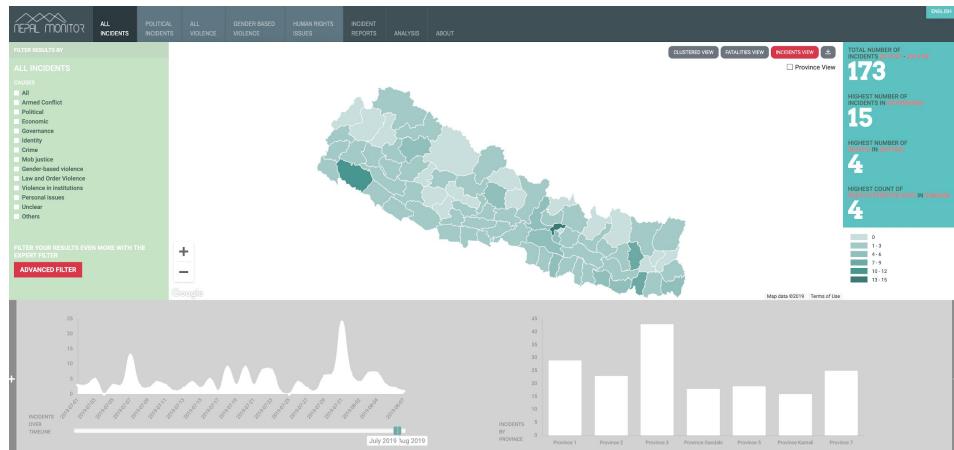


Source: [YoungInnovations Blog](#)

Source and further reading: <https://bit.ly/2KiVMSI>

Example 3: Nepal Monitor

- A platform alerting local organizations to human rights issues around them.
- Daily, staff scan through online resources, media reports and crowdsource data on various issues ranging from crime to gender violence.
- This data is made available to citizens, human rights organizations and security forces through a website and SMS for subscribers.



Source: <https://www.nepalmonitor.org/>

Source and further reading: <https://www.nepalmonitor.org/about>

Example 3: Nepal Central Bureau of Statistics Annual Household Survey 2016-17

- The survey was aimed at collecting data necessary to monitor the annual changes in consumption and other socioeconomic indicators of Nepal that could help for economic planning.
- You can visit the website to learn about the methodology deployed by CBS to carry such extensive exercise and adopt some processes.

The screenshot shows the homepage of the Central Bureau of Statistics (CBS) website. At the top, there is a blue header bar with the CBS logo, the text "Government of Nepal National Planning Commission Central Bureau of Statistics", and language options "English" and "नेपाली". Below the header is a navigation menu with links for "Home", "About us", "Notice", "Publications", "FAQ", and "Contact us". A search bar is also present. The main content area features a banner for the "Annual Household Survey 2016-17" with the text "ANNUAL HOUSEHOLD SURVEY 2016/17" and "(Major Findings)". To the left of the banner is a sidebar titled "Headlines" containing links to various reports like "National Population Census Operation and Management directives, 2076", "Quarterly GDP 2018", "Commercial Coffee Survey-2076 Report", "National Economic Census 2018, National Report", "National Economic Census 2018 Press Release", and several provincial and district statistics links.

Source: [Central Bureau of Statistics](#)
Source & further reading: <https://bit.ly/2Tfj12K> (PDF)

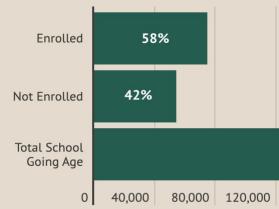
Opportunities for Data Collection: Team 1

Inclusive Education for People with Disabilities

Are We Doing Enough?

3 out of 5 people with disability are illiterate in Nepal
CBS 2011

Total School Enrollment CBS 2011



According to Census 2011 and Flash Report 2011-12, around 40% of school going age (people with disability) do not enroll in schools.

WHAT ARE THE GAPS and WHAT CAN WE DO ABOUT IT

How can primary data help improve this study?

Lack of robust/disaggregated data: Push for the need to investing in collecting and disseminating data. - [Source](#)

Opportunities for Data Collection: Team 7

What's in your water jar?

A study of treated water in Kathmandu



Utkrista Parajuli, Bhrikuti Rai, Bijay Timalsina, Raunak Raj, Debabrata Sukla

All icons are licensed under creative commons

Sources: [Nepal Data Literacy Program Team 7 project](#)

How can primary data help improve the study?

What's the story so far?

Total Samples Substandard



"This year alone we shut down 55 water purifying companies and filed cases against 33 other companies," Purna Chandra Osti. - spokesperson for the Department of Food Technology and Quality Control (May 2019, [The Kathmandu Post](#))

Thank You

Module 2

Introduction to Data Collection Projects



Mobile Data Collection

The spread of cheap smartphones has unlocked the potential of mobile data collection, given rise to a multitude of projects, from urban mapping to the surveying of remote communities.

<http://surveys.worldbank.org/>



WORLD BANK GROUP

Survey Unit



Home

About the Survey Unit

Living Standards
Measurement Study (LSMS)

Microdata Library

Software

- ADePT
- **CAPI**
- NADA
- Tools for Privacy (sdcMicro)

FOLLOW US:

- Facebook
- Youtube

Get started with Survey Solutions

A photograph showing a person's hands interacting with a white tablet computer. The screen of the tablet displays a software interface with various data fields and tables, likely related to survey solutions. The background is slightly blurred, showing what appears to be an office or fieldwork environment.

ABOUT SURVEY SOLUTIONS AND CAPI ADVANTAGES

The Computer-Assisted Personal Interview technology developed by the World Bank assists governments, statistical offices and non-governmental organisations in conducting complex surveys with dynamic structures using tablet devices. The software can be tailored to the needs of the clients, allowing them to successfully complete simple and more sophisticated projects: from basic evaluation questionnaires to complicated multistage panel surveys.

Steps to take in your data collection project

- Identify the opportunity for data collection: Why? What data do you need and where is located?
e.g (your group project)
- Develop a plan: Identify the resources you need/have, define the scope of work, draft budget, time allocations and team.
- Set up the project team.
- Create an implementation plan with the team.



Photo by [Antonio Grosz on Unsplash](#)

Steps To Take Contd..

- Engage stakeholders.
- Set up technology and create surveys.
- Train field staff on data collection, technology use and community engagement.
- Go to the field and monitor team activities.
- Aggregate data and additional information from the field.



Photo by [Antonio Grosz on Unsplash](#)

Develop a plan for your Data Project:

- Defining the scope of work you intend to carry out and list out the resources needed.
- Create an implementation plan that includes milestones, deliverables, timelines, stakeholders and team structure.
- Indicative budget estimates.
- Get buy-in from team or leadership where necessary.



Photo by [William Iven on Unsplash](#)

Team Structure

1. Project manager
2. Survey designer
3. Data manager
4. Trainer
5. Technologist
6. Statistician
7. Field Staff



Photo by Nepal Data Literacy Program

Project Manager

- Project Managers are responsible for overall management of the data collection project.
- They define the project goal, scope, cost, create the plan and are responsible for all the major decisions that need to be taken during the project.
- They identify and manage all stakeholders, oversee communication, changes, report the project status and maintain a record of lessons learned.



Photo: <https://pixabay.com>

Survey Designer

- They construct questions that elicit just the right data from the survey respondents.
- They understand the subject area and make sure the questions are not ambiguous but straightforward for respondents to understand.
- They help choose the right survey method/mode and design the survey instrument to fit.



Photo: <https://pixabay.com>

Data Manager

- They work with the Survey Designer to ensure the questionnaire used in the interviews will generate relevant data for the analysis phase.
- They create variable mappings and define the format in which output is generated.
- It is their responsibility to track the progress of data collection and to communicate it to the rest of the team.



Photo: <https://pixabay.com>

Trainer

- Trainers develop materials and organize training sessions for the team to learn the skills they need to perform a successful data collection project.
- Quality of the data depends on the data collection skills of the field team.
- They make sure the team gets familiar with the mobile devices and app used to conduct the survey.



Photo: Nepal Data Literacy Program

Technologist

- Responsible for the overall technology setup and support for the whole project.
- They help to choose the best mobile tool kit that best suits the scope of the project.
- They advise on the best devices, set up servers and offer field technology support.



Photo: <https://pixabay.com>

Statistician

- Statistical expertise is key to ensure that the data collected is representative of the population you are interested in.
- They help with the science of data collection that includes sampling, survey design and analysis.
- Your organisation may already have this expertise or you can hire an external statistician or work with organisations like National Statistics Offices.



Photo: <https://pixabay.com>

Field Team

- There might be a need to include or recruit people from other organizations, local community members where the project will take place.
- The Project manager has to identify the need, budget for them and the trainer has to organize trainings for the field agents.



Photo: <https://pixabay.com>

Lab 1: Create a data collection plan for your group project

In your Group, create a data collection plan based on the steps 1-5 below:

1. Identify the opportunity for data collection, what data you need and where it is located.
2. Develop a quick plan: Identify the resources you need/have, define the scope of work, draft budget, time allocations and team
3. Set up your project team
4. Create a short pitch plan to get buy-in
5. Present this to the audience as your stakeholders.



Photo: <https://pixabay.com/>

Module 3

Methodology and Survey Design

Methodology Characteristics

It includes several elements such as:

- Deciding on what sampling method to use.
- Deciding on what survey delivery method/mode to use.
- Design your survey.
- Ensuring the privacy, security and confidentiality of everyone involved in the data collection process.



Photo: <https://pixabay.com/>

Sampling

- Sampling is a statistical process of selecting a subset of a population for study from a relatively large population in order to draw inferences about the characteristics of the entire population.

Types:

- **Probability sampling:** Each unit in the population has an equal chance of being included in the sample.
- **Non-probability sampling:** population elements are selected on the basis of their availability.

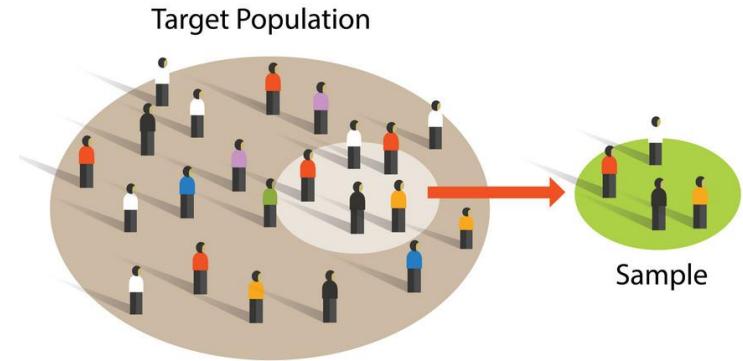
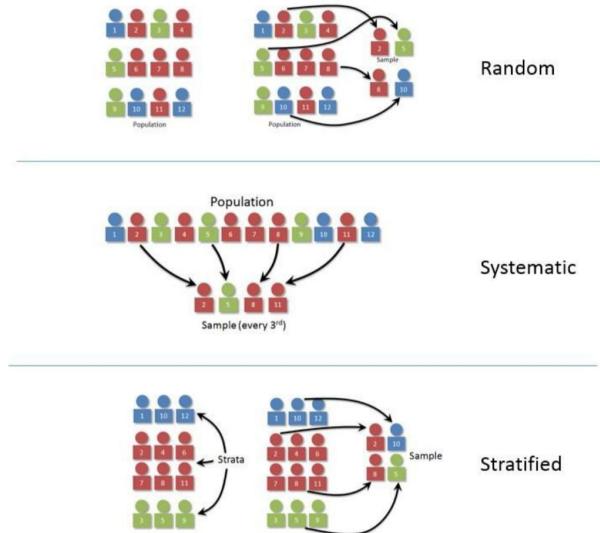


Photo: [VectorStock](#)

Types of Probability Sampling

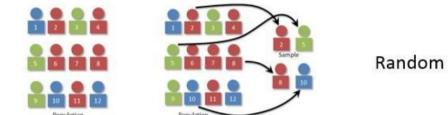
- **Simple random sampling** - Where every item has an equal chance of being included. An electronic random number generator can be used.
- **Systematic sampling** - Here each sample is chosen at equal intervals from the population. That is, every Nth record is selected.
- **Stratified random sampling** - Divide your population into distinct internally homogenous and externally heterogeneous groups called strata. E.g. age, religion, gender.
- **Cluster sampling** - Here, the population is divided into naturally occurring multiple clusters with homogeneous but internally heterogeneous characteristics.



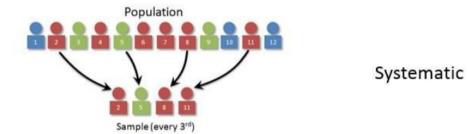
Source: SCODA

When to use Probability Sampling

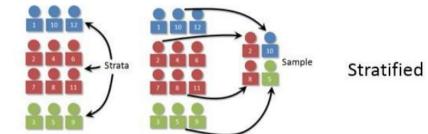
- **Simple random sampling** - Applicable when population is small, homogeneous & readily available. E.g. The diversity visa lottery.
- **Systematic sampling** - when a project has limited budget, requires a short timeline and you want to eliminate clustered selection.
- **Stratified random sampling** - used when the researcher wants to highlight a specific subgroup within a population or observe relationships between two or more subgroups.
- **Cluster sampling** - It's used when a researcher can't get information about the population as a whole, but they can get information about the clusters.



Random



Systematic



Stratified

Source: SCODA

Types of Non - Probability Sampling

- **Convenience Sampling/haphazard:** samples are selected from a population based on their availability for the survey.
- **Consecutive Sampling:** Here you pick a group of samples, collect data over a period of time and move over to another group of samples.
- **Judgement Sampling:** Samples are selected at the discretion of the researcher, based on expert's knowledge and professional judgment.
- **Snowball sampling or chain-referral sampling:** When one sample is found, the researcher asks for referral to similar samples. This goes on and on.

SNOWBALL SAMPLING

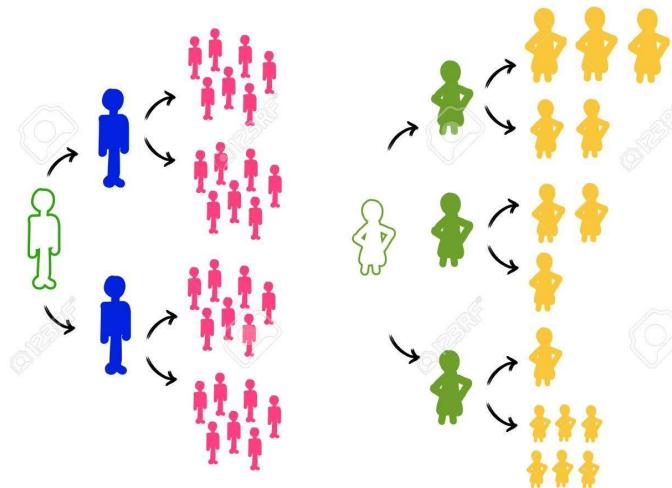


Photo: <https://www.123rf.com/>

When to use Non - Probability Sampling

- **Convenience Sampling/haphazard:** Useful for pilot testing. it is fast, inexpensive, easy but with a limitation in generalization and making inference about the entire population.
- **Snowball sampling or chain-referral sampling:** Used when the desired sample characteristics are rare and difficult to find.
- **Judgement Sampling:** This is used primarily when there is a limited number of people that have expertise in the area being researched.
- **Consecutive Sampling:** When every subject that meets the criteria of your sample has to be selected. It helps control bias.



Video on sampling

Using Python for Random & Systematic Sampling Methods

Survey

- Survey is the process of collecting data or gathering information from respondents using selected methods in order to answer some preset research questions or objectives.

Common Methods

- Interviews
- Direct Observations
- Questionnaires



Photo: <https://www.123rf.com/>

Modes of Survey Delivery

Focus of our presentation

- **Face to Face or in-person:** The interviewer visits the correspondent where they are with either paper or online questionnaires. It is the most expensive.
- **Web/online surveys:** Respondents are contacted through email and sent surveys which they can complete and send back through the internet. It is a fast and convenient method.
- **Telephone survey:** This is a more economical mode where interviews are carried out via a phone call from a trained interviewer to a preselected respondents.
- **Mail/Postal surveys:** Here, printed questionnaires or discs are sent out to a sample respondents to fill and post back to the researcher with cost of posting covered by the researcher. This mode offers one of the lowest cost.

Technology used in the different modes

- Online and offline surveys using the web, smartphones and tablets.
- IVR—Interactive Voice Response.
- CAPI—Computer-Assisted Personal Interviewing.
- CATI—Computer-Assisted Telephone Interviewing.
- CASI—Computer-Assisted Self-Interviewing.



Tips for Designing a Survey Questionnaire

- Create a schema first - a flow chart or paper draft to show the structure of your questionnaire.

Introduce your study or Project

- Clearly state the purpose, objectives and goals of the study or project.
- Inform respondents about the who is conducting the survey, how long it will take, how the data will be used.
- Include a consent a consent paragraph/form with provision for the respondent to sign.
- Depending on the complexity, review this with experts.



Source: <https://www.eugensystems.com>

Question Formatting and Phrasing

- Sequence your questions - starting from easy generic questions and be mindful of ordering questions
- Categorize related questions, with distinct section headers in order to have seamless flow of answers.
- Be as concise as possible refraining from asking leading questions.
- Use closed-ended questions to limit irrelevant responses. Only use open-ended questions when utterly needed and code them.
- Be aware of the type of data being collected and use local languages where necessary.
- Check for templates that you could adapt from.



Source: <https://www.findspark.com>

Survey Schema

- This is a breakdown of each survey question and response format.
- It also shows the flow of questions and helps think through questions.
- It helps to assess the potential sources of error and device techniques to reduce them.
- Doing this help speed up the development of the final survey
- Let's explore [Nepal labour force](#) (Page 134 - 140) survey schema

ANNEX IV: FLOW CHART OF QUESTIONNAIRE

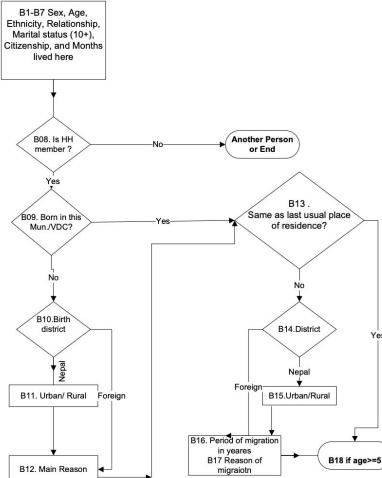
Cover page and Section 1 (General information)

Season, PSU code, household ID, district, VDC/municipality, ward, sub-ward, Village/ Tole, Name & Religion of Household head, Team no., Household list, total household members, member aged 5 & over, date of interview,

Section 1 Housing Information

Ownership of dwelling, Structure of House, Source of drinking water, Main fuel for cooking, Lighting fuel, Type of toilet, Availability and no. of facility Agriculture land?
Own land operation by HH
Other's land operation by HH
Own land Operated by others

Section 2: Household Composition :



Questionnaire generated from the Schema



 Central Bureau of Statistics
Nepal Labour Force Survey 2007/08
QUESTIONNAIRE

All information collected in this questionnaire will be confidential as per Statistical Act, 2015 and will be used for statistical purposes only.

Season: Team No :

PSU CODE: Date of interview: DD MM YY Selected

Household ID No.:

District: Interviewer's Name:

VDC/Municipality: Signature:

Ward/ Sub-ward: Supervisor's Name:

Village/Tole: Supervisor's Name:

Name of the Household Head: Signature:

Religion of Household Head: Date:

Total Household Members (Usual Residents):

Total Household Members 5 years and above (Usual Residents): Signature:

Annex B

SECTION 1: HOUSEHOLD INFORMATION

1. What is the type of tenancy of the dwelling occupied by your household?
 Owned 1
 Rented 2
 Others (Specify) 3

2. What is the main source of drinking water of your household?
 Piped water 1
 Hand pump/Boring 2
 Well 3
 Spout/Spring water 4
 Other source (Specify) 5

3. Which is the most used fuel for cooking in your household?
 Wood/Firewood 1
 Dung 2
 Leaves/Rubbish/Straw/Thatch 3
 LP Gas 4
 Kerosene 5
 Bio-gas 6
 Others (Specify) 7

4. What is the main source of lighting in your household?
 Electricity 1
 Gas/Oil/Kerosene 2
 Others (Specify) 3

5. What type of toilet is used by your household?
 Toilet with flush (connected to municipal sewer) 1
 Toilet with flush (connected to septic tank) 2
 Toilet non-flush 3
 Communal latrine 4
 No toilet 5

6. Which of the following facilities are available in your household?

	Yes...1 No....2 ➔NEXT FACILITY	If yes, write the number
6.1 Radio		
6.2 Television		
6.3 Telephone		
6.4 Mobile phone		
6.5 Computer		

7. Do you own any agricultural land, including land operated by yourself, or operate land owned by others?

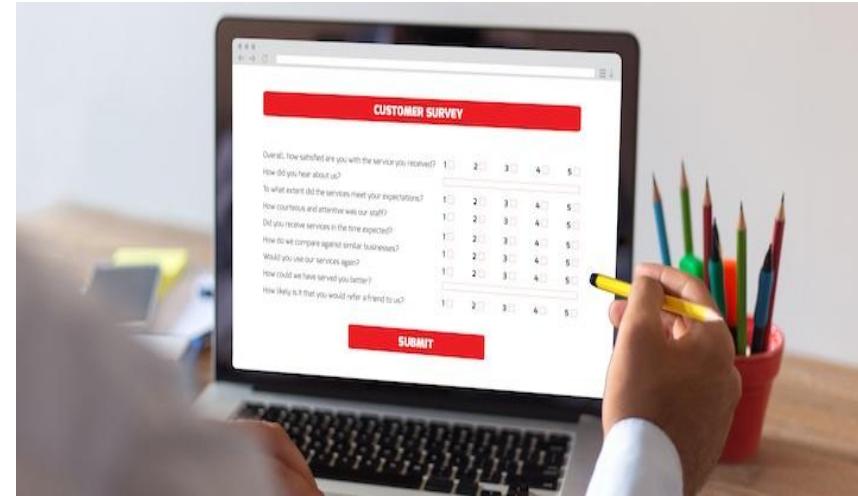
Yes.....1
 No.....2 ➔9

8. What is the total area of agricultural land owned or operated?

	Yes..1 No..2	Ropani...1 Bigha...2	Ropani...1 Bigha...2	Aana/ Katha	Paisa/ Dhur
8.1 Own land operated by HH					
8.2 Other's land operated by HH					
8.3 Own land operated by others					

Turning Schema into Questionnaire

- First, you decide on the best tool to use for their data collection.
- For mobile data collection this means selecting the right data collection software and devices.
- Once that is done, it is just a matter of transferring the schema into the suitable online form for the data collection software.



Source: <https://blog.hubspot.com>

Privacy and Confidentiality of Respondent.

Thinking about the privacy and confidentiality of respondents is particularly important at the early stage of your project.

- You need to decide before designing your survey what level of personal information needs to be collected, the legal implications of your methodology and processes.
- You are responsible for handling, storing and sharing the data you gather and the privacy of the respondents.
- Always minimize the collection of personal information. Where personal data is involved, ensure you have a privacy policy, respondents read, understands and sign documents where necessary.
- You are responsible for any breaches or harm that comes to your respondents data except agreed otherwise.



Nepal Privacy Act.- 2018

- You need to be conversant with the data and privacy act/policies in the country or region where your project cuts across to ensure you are compliant.
- For example, The General Data Protection Regulation in Europe.
- For Nepal privacy act, 4 chapters has been dedicated to give guidance to your data collection plan. [Nepal Privacy Act - 2018](#) (Chapter 6-10)
- This includes policy on consent, taking photos, recordings, personal information and sharing data.

Chapter-6 Privacy Relating to Data

12. **To have privacy of data:** (1) Every person shall have the right to keep the personal data or details related to him or her confidential.
 - (2) While collecting personal or family data of any person, his or her consent shall be obtained.
 - (3) The data collected by a public body or body corporate upon obtaining the consent of the concerned person shall be used only for the purpose for which such data have been collected.

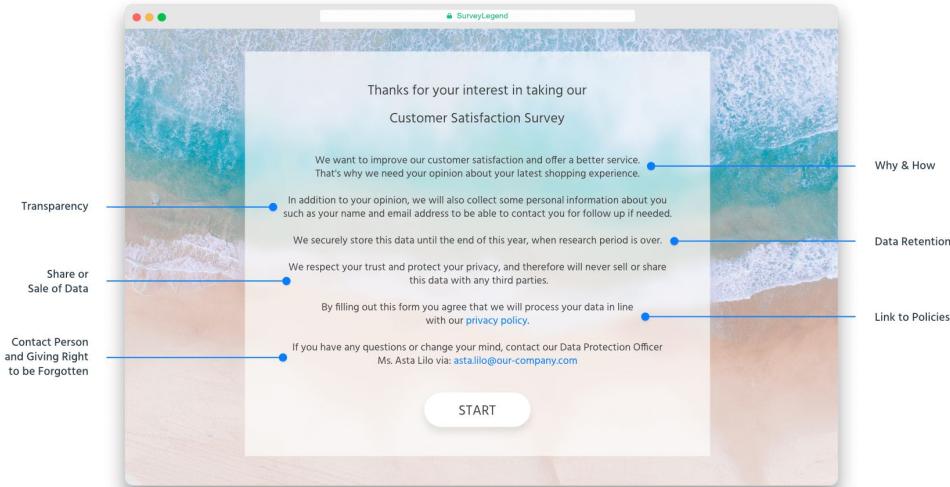
Provided that if any data are demanded for the national security or peace and order, it shall not be deemed to bar to provide such data in accordance with the prevailing law.

 - (4) No person shall, without obtaining the consent of another person, provide the following data related to that person to anyone else or publish, or cause to be published, such data:
 - (a) Details relating to health examination,
 - (b) Details relating to property and income generation,
 - (c) Details relating to employment,
 - (d) Details relating to family matters,
 - (e) Biometric details and thumb impression,
 - (f) Signature or electronic signature,
 - (g) Details relating to political affiliation and election,
 - (h) Details relating to business or transaction. - (5) Notwithstanding anything contained in sub-section (4), in cases where it is necessary to provide any personal data or details to the court or the agency or official authorized under law in the course of investigation of any criminal offence, such data or details shall be provided.

Source: [Nepal Law Commission](#)

Tips: Privacy notice should contain:

- The kind of data you are collecting.
- How you will be using it.
- What you will use it for.
- How long you will be keeping the data for.
- Confidentiality of the information
- If you are sharing the data, license in which the data will be shared.
- Contact for inquiries, complaints or updates.



Source: <https://www.surveylegend.com>

Examples of Template Sources



SEARCH | LOGIN | SELECT LANGUAGE ▾

WHO WE ARE | WHAT WE DO | WHERE WE WORK | DATA | PUBLICATIONS | TOPICS

The DHS Program > Publications > DHS Model Questionnaire - Phase 7 (English, French)

Publications

PUBLICATIONS

Publications Search

By Type

By Country

By Topic

Recommended Citations

JOURNAL ARTICLES

Journal Articles Search

By Journal

By Country

By Topic

ORDER PUBLICATIONS

How to Order/Download

Shopping Cart

Publications Summary

◀ go back

DHS Model Questionnaire - Phase 7 (English, French)



Document Type: DHS Questionnaires and Manuals

Language: English, French

Author(s): The DHS Program

Publication Date: October 2015

Publication ID: DHSQ7

Browse

Browse for Publications by:

Country

Publication Type

Topic

Browse for Journal Articles based on DHS data by:

Country

Topic

Journal

Download this publication

- DHS7_Household_QRE_EN_16Mar2017_DHSQ7 (PDF, 69K)
- DHS7-Womans-QRE-EN-17Dec2018-DHSQ7 (PDF, 275K)
- DHS7_Mans_QRE_EN_12Oct2015_DHSQ7 (PDF, 98K)
- DHS7_Biomarker_QRE_EN_09Jun2015_DHSQ7 (PDF, 93K)
- DHS-7-Fieldworker-QRE-EN-13Feb2019-DHSQ7 (PDF, 17K)
- DHS7_Household_QRE_EN_16Mar2017_DHSQ7 (XLSX, 234K)
- DHS7-Womans-QRE-EN-17Dec2018-DHSQ7 (XLSX, 930K)
- DHS7_Mans_QRE_EN_12Oct2015_DHSQ7 (XLSX, 356K)
- DHS7_Biomarker_QRE_EN_09Jun2015_DHSQ7 (XLSX, 347K)
- DHS-7-Fieldworker-QRE-EN-13Feb2019-DHSQ7 (XLSX, 55K)
- DHS7-Household-QRE-FR-18May2018-DHSQ7 (PDF, 75K)
- DHS7-Womans-QRE-FR-28Jun2019-DHSQ7 (PDF, 326K)
- DHS7-Mans-QRE-FR-28Jun2019-DHSQ7 (PDF, 110K)
- DHS7_Biomarker_QRE_FR_18May2018_DHSQ7 (PDF, 95K)
- DHS-7-Fieldworker_QRE_FR_20Oct2015_DHSQ7 (PDF, 17K)
- DHS7-Household-QRE-FR-18May2018-DHSQ7 (XLSX, 240K)



FROM THE AMERICAN PEOPLE

FORMATTING DATE: 16 Mar 2017
ENGLISH LANGUAGE: 16 Mar 2017

DEMOGRAPHIC AND HEALTH SURVEYS
MODEL HOUSEHOLD QUESTIONNAIRE

IDENTIFICATION (1)				
PLACE NAME				
NAME OF HOUSEHOLD HEAD				
CLUSTER NUMBER				
HOUSEHOLD NUMBER				
HOUSEHOLD SELECTED FOR MAN'S SURVEY? (1=YES, 2=NO)				
INTERVIEWER VISITS				
DATE	1	2	3	FINAL VISIT
INTERVIEWER'S NAME				DAY
RESULT*				MONTH
NEXT VISIT: DATE				YEAR
TIME				INT. NO.
				RESULT*
				TOTAL NUMBER OF VISITS
				TOTAL PERSONS IN HOUSEHOLD
				TOTAL ELIGIBLE WOMEN
				TOTAL ELIGIBLE MEN
				LINE NO. OF RESPONDENT TO HOUSEHOLD QUESTIONNAIRE
LANGUAGE OF QUESTIONNAIRE**	<input checked="" type="radio"/> 0	<input type="radio"/> 1	LANGUAGE OF INTERVIEW**	NATIVE LANGUAGE OF RESPONDENT**
LANGUAGE OF QUESTIONNAIRE**	ENGLISH		TRANSLATOR USED (YES = 1, NO = 2)	
LANGUAGE OF QUESTIONNAIRE**	ENGLISH		**LANGUAGE CODES: 01 ENGLISH 03 LANGUAGE 3 05 LANGUAGE 5 02 LANGUAGE 2 04 LANGUAGE 4 06 LANGUAGE 6	
SUPERVISOR			FIELD EDITOR	OFFICE EDITOR
NAME	NUMBER	NAME	NUMBER	KEYED BY
				NUMBER

Note: Questions with pink highlighting in the question number column are malaria-related questions that may be deleted in some circumstances (see footnotes). Brackets [] indicate items that should be adapted on a country-specific basis.

Click to view source: [DHS](#)

GET STARTED WITH SURVEY SOLUTIONS

SUPPORT PORTAL

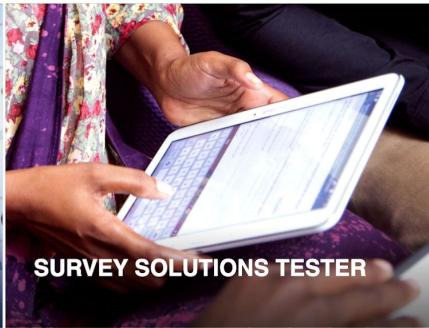
Here you can learn how to conduct a household survey using the CAPI technology, watch our instructional videos and ask interested you questions.



[DOWNLOAD HQ](#)



QUESTIONNAIRE DESIGNER



SURVEY SOLUTIONS TESTER

STATUS	RECEIVED	DATE	FILED	MAIN SURVEY DATA
InterviewerAssigned	No	6/28/2017	—	Zip archive with main survey data
Completed	No	6/28/2017	—	 STA
InterviewerAssigned	No	6/27/2017	—	 SP
InterviewerAssigned	No	6/27/2017	—	 SP
Completed	No	6/27/2017	—	 TAB
Completed	No	6/27/2017	—	 TAB
DEMO SERVER		6/27/2017	—	 TAB
Completed	No	6/27/2017	—	 TAB
Binary Data		6/27/2017	—	 TAB
Archive with binary data		6/27/2017	—	 TAB

DEMO SERVER

The World Bank Survey Solutions Portal

A free portal by the Survey Unit of the World bank with resources that can help you understand, structure and conduct your survey.



GROUPS

Agriculture

60

HEALTH

Brand of mosquito net (DHS)

5

Assets, income, credit

11

Brand of mosquito net (KIS)

8

Decision making

8

Brand of mosquito net (MICS)

12

Demographics

41

Brand of mosquito net (MIS)

5

Education

44

Cause of breathing symptoms (DHS)

5

Environment

4

Cause of breathing symptoms (MICS)

5

Food security

4

Contraception method (alph) (DHS)

15

Generic

133

Contraception method (alph) (KIS)

12

Geographic

9

Contraception method (LSMS)

15

Goods and services

10

Contraception method (MICS)

14

Health

125

Contraception method (num) (DHS)

15

Housing

71

Contraception method (num) (KIS)

13

Information and Communication technology

6

Contraception: reason for not using (DHS)

23

Labor and Employment

68

Contraception: reason for not using (KIS)

19

Migration and Remittances

24

Contraception: reason for not using (LSMS)

8

Society and community

3

Delivery: who assisted (CWIQ)

5

Transportation

5

Delivery: who assisted (DHS, AIS)

7

Violence and crime

6

Delivery: who assisted (LSMS)

5

Water and Sanitation

54

Delivery: who assisted (MICS)

8

Diarrhea/fever/cough: how much drink (DHS, MICS)

6

HEALTH / BRAND OF MOSQUITO NET (DHS)

Long-lasting insecticide-treated net (LLIN) - Brand A

11

Long-lasting insecticide-treated net (LLIN) - Brand B

12

Long-lasting insecticide-treated net (LLIN) - Other/don't know brand

16

Other type

96

Don't know type

98

Lab 2: Create a data collection plan for your group project

In continuation from lab 1,

- As a group, discuss and choose your survey methodology for your data collection project.
- Identify your target population or region and choose sampling method.
- Choose your survey delivery mode.
- Create your survey schema.

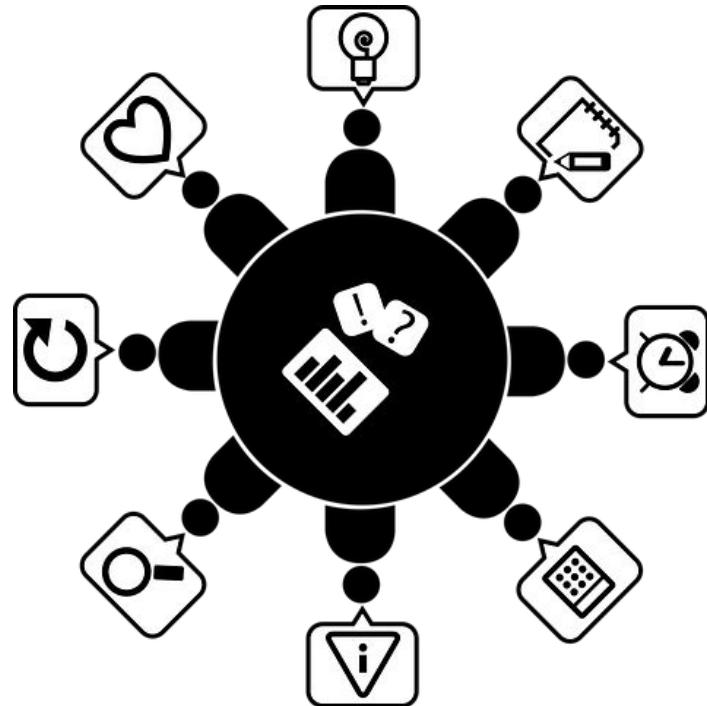


Photo: <https://pixabay.com/>

Module 4

Tools for Mobile Data Collection

#DidUGetRelief: Initial findings from Code for Nepal #RahatPayo pilot project on earthquake relief

BY CODEFORNEPAL

ON OCTOBER 18, 2015

POSTED IN DATAVIZ, GENERAL, PROJECT, RAHAT PAYO



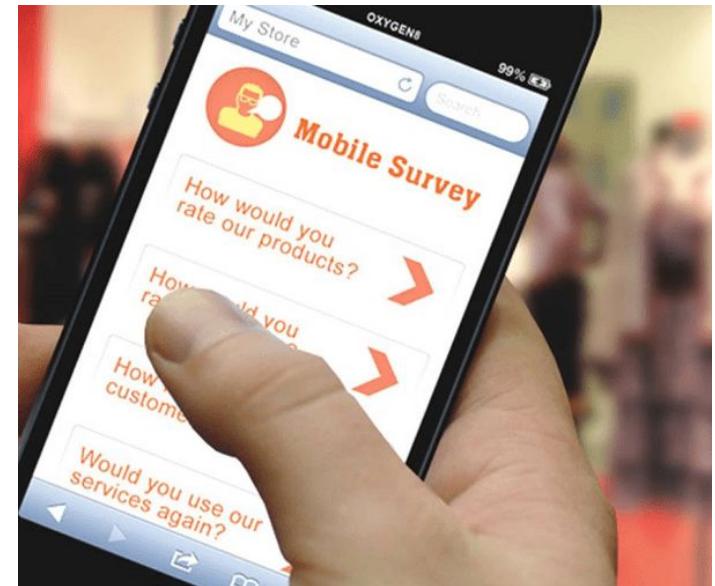
Mobile Data Collection in use



Code for Nepal team launched a project [Rahat Payo \(Did you get relief?\)](#) - using Kobo Toolbox to carry out a pilot survey to collect data from earthquake survivors to find out if they got relief. to help fill the information gaps that existed. [See form used](#)

Advantages of using mobile data collection

- It is faster, more accurate and easy to use both online and offline.
- Mobile-based data collection compared with the use of paper forms, lessens the risk of losing the data when paper forms are damaged or lost.
- Most people are using smartphones and have access to mobile data connection.
- In the absence of laptops and desktop computers, smartphones are cheaper and easier to use.



Source: <https://33digital.keithmcmean.co.uk/>

Mobile Data Collection Tools

- [Device Magic](#) for pre-filling form data
- [Fulcrum](#) for geolocation with custom maps
- [Magpi](#) for interactive voice data collection
- [FastField](#) for exporting data into Word and PDF templates
- [Zoho Forms](#) for accepting payments
- [FormHub](#)
- [Enketo](#)
- [Viamo Mobile Surveys](#)
- [Mobile Forms](#)
- [Open Data Kit \(ODK\)](#)
- [Kobo Toolbox](#)
- [GeoODK](#)
- [Cadasta Platform](#)

Things to consider when choosing a data collection tool:

- The data requirements and then find the tool that can accommodate it. For example do you require gps data, video, pictures.
- Consider your sample size, survey techniques, geographic reach.
- Environmental factors like language, digital literacy and security of the field agent.
- Technical requirements -internet, storage of data, servers, gps in the locations, backup power.
- Resources - your budget, staff size, the cost of the devices, internet and power banks.



Image source: <https://pixabay.com/i>

Let us explore some tools!

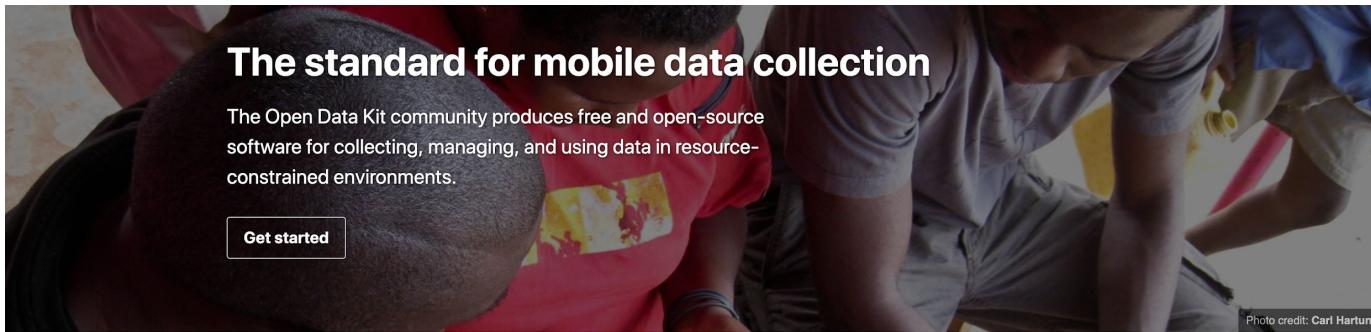


Photo credit: Carl Hartung

Open Data Kit tools help millions of people around the world collect, manage, and use their data.

Our users include [Google](#), [WHO](#), [CDC](#), [USAID](#), the [Red Cross and Red Crescent](#), the [Carter Center](#), the [Jane Goodall Institute](#) and [many others](#).

From [monitoring rainforests](#) to [observing elections](#) to [tracking outbreaks](#), Open Data Kit is the standard for mobile data collection.



<https://opendatakit.org/>

Open Data Kit (ODK)

It is a free, open source, easy to use and can be used both offline and online tool which helps organizations author and manage mobile data collection solutions.

Why ODK?

ODK has been customized by Kobo Toolbox, GeoODK, KLL Collect, Formhub, Enketo ODK provides an out-of-the-box solution for users to:

1. Build a data collection form or survey (XLSForm is recommended for larger forms).
2. Collect the data on a mobile device and send it to a server.
3. Aggregate the collected data on a server and extract it in useful formats.



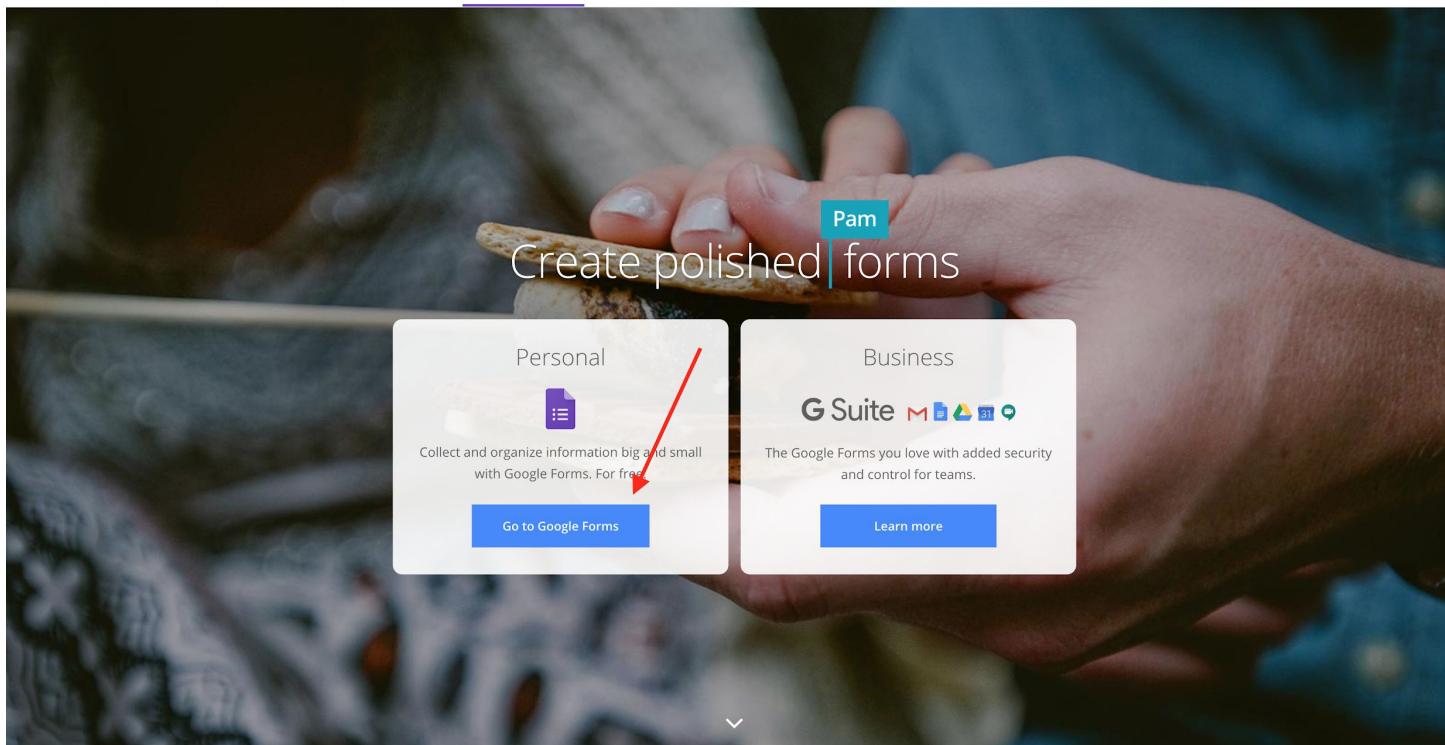
<https://opendatakit.org/>

Using ODK

- Install Collect
- Install Aggregate (optional)
- Create a form with Build and upload it to Aggregate
- Load a form into Collect from Aggregate
- Fill out a form and upload it to Aggregate
- If you are interested in learning how to work with ODK, there is an [extensive guide](#).



<https://opendatakit.org/>



<http://forms.google.com/>

Google Forms

It a simple to use web-based app that can be used to create and administer a survey for data collection. You can create polls, registrations, quizzes and alot more. All your responses once submitted, goes to a spreadsheet.

Advantages of Google form

- Free and open to everyone with a google account
- Easy to navigate
- Pre-designed templates
- Ability to collaborate with others and work simultaneously
- Analysing and visualizing data
- Ability to import results to google spreadsheet and perform further analytics

Limitations of Google form

- Limited design customization compared to other platforms like survey monkey
- Limited question types
- Limited templates to choose from (16 only)

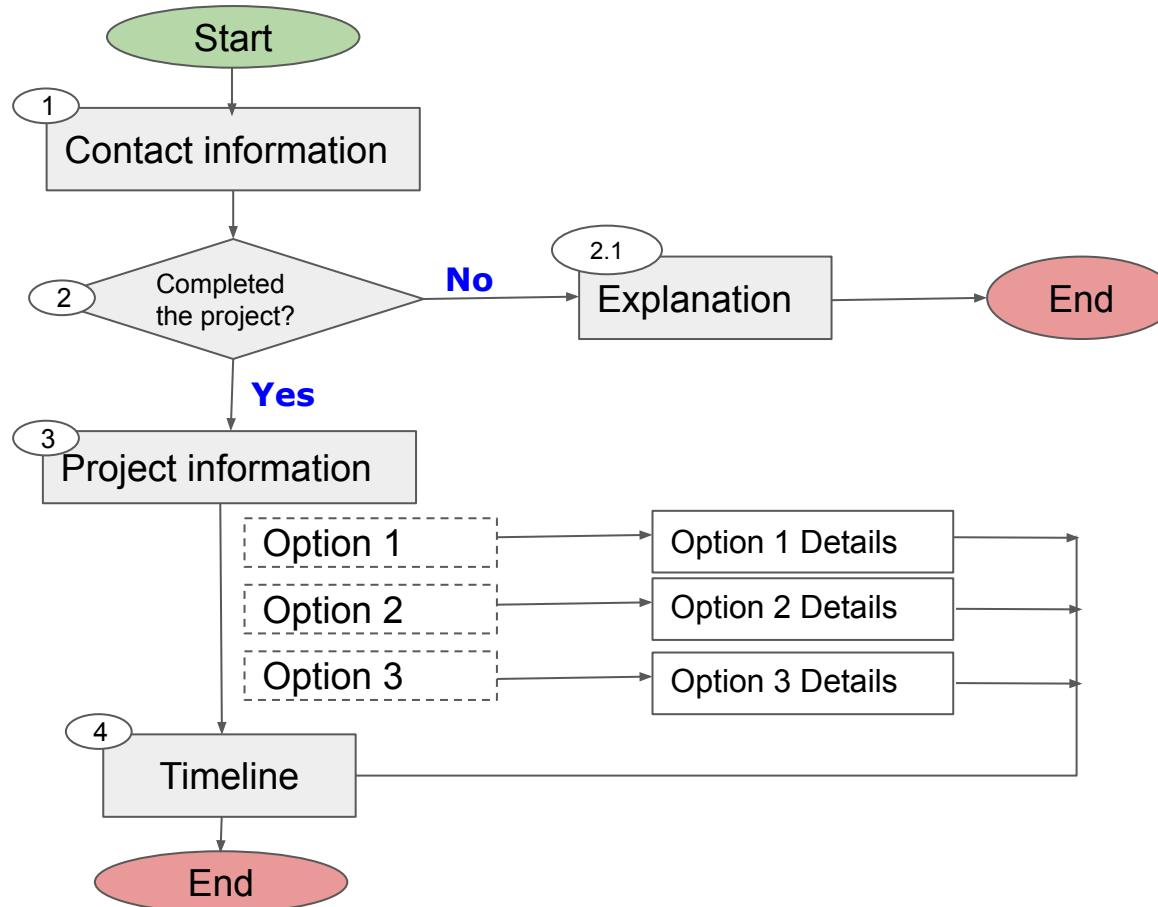
Example -- Project completion forms

- Simple informative form to collect information about blended form completion projects from participants
 - Contact information
 - Project details based on project types
 - Timeline

Creating a survey on google form

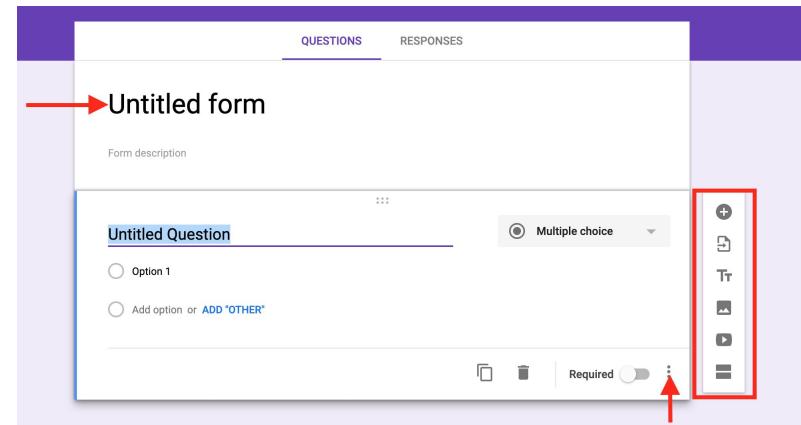
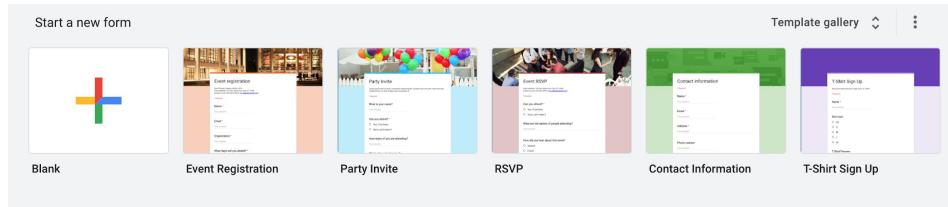
1. Identify the target
2. Create a schema or plan
3. Quick prototype of the form
4. Test with your team/small sample
5. Iterate and improvise the survey
6. Roll out the survey
7. Analytics on the survey/visualization

Schema for the form we will be working with



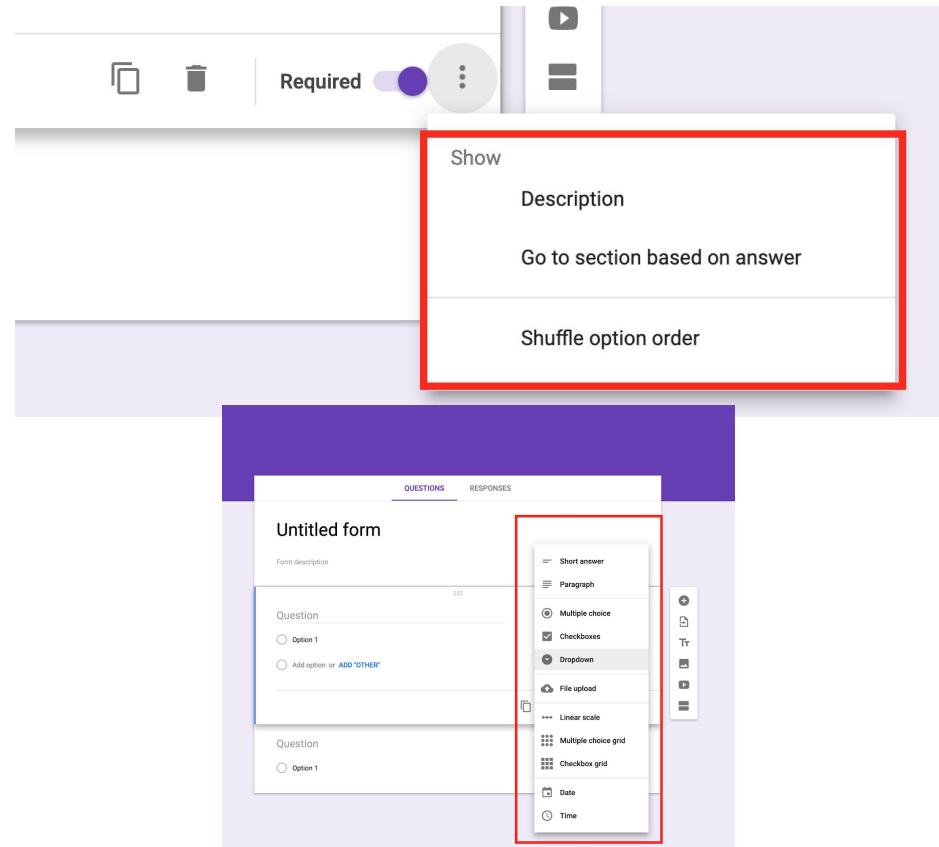
How to use Google form

- Go to <http://forms.google.com/> and sign in using your gmail account
- Click on 'start a new form' to create a new form or use one of the templates
- On the blank page that comes up,. Create a title for the form
- You will see an untitled question, put one of the questions from your survey schema.
- Click on the + sign on the right hand side menu, in there, there are options to add more questions, images, video and sections



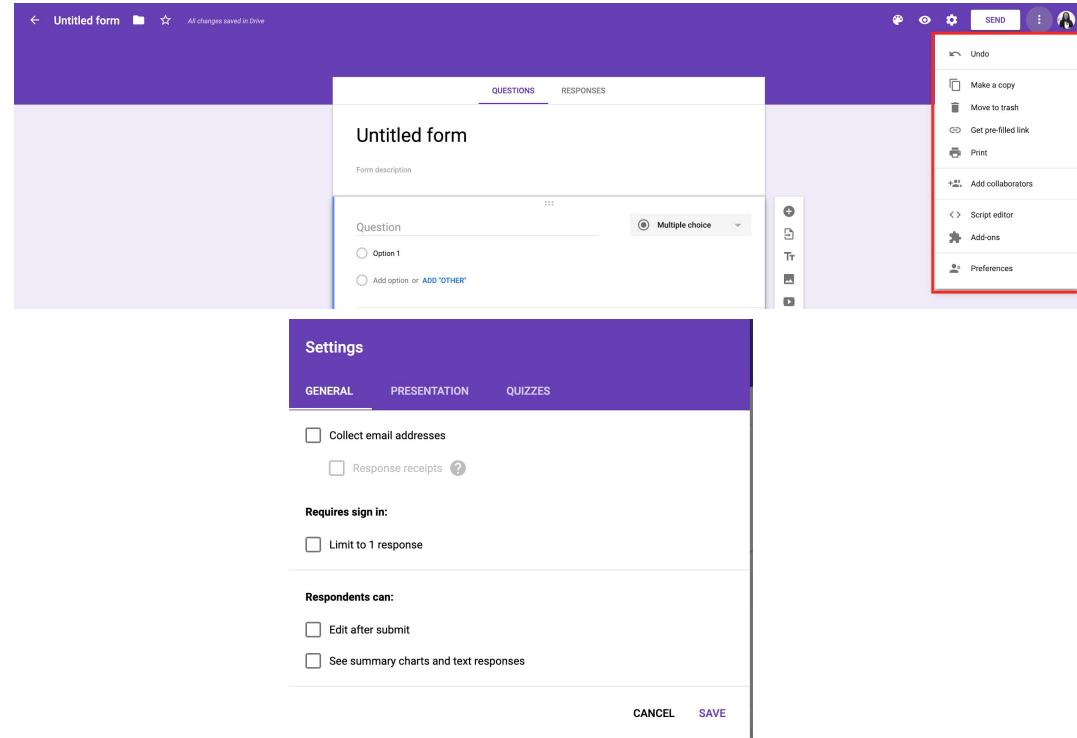
How to use Google form

- You can set the question option to be required and click on the three dot button to get a drop down to add description, response validation and other.
- Also explore the multiple choice to choose from a selection on the kind of answer you want to your questions ranging from short answers, file updates to date and time.



How to use Google form

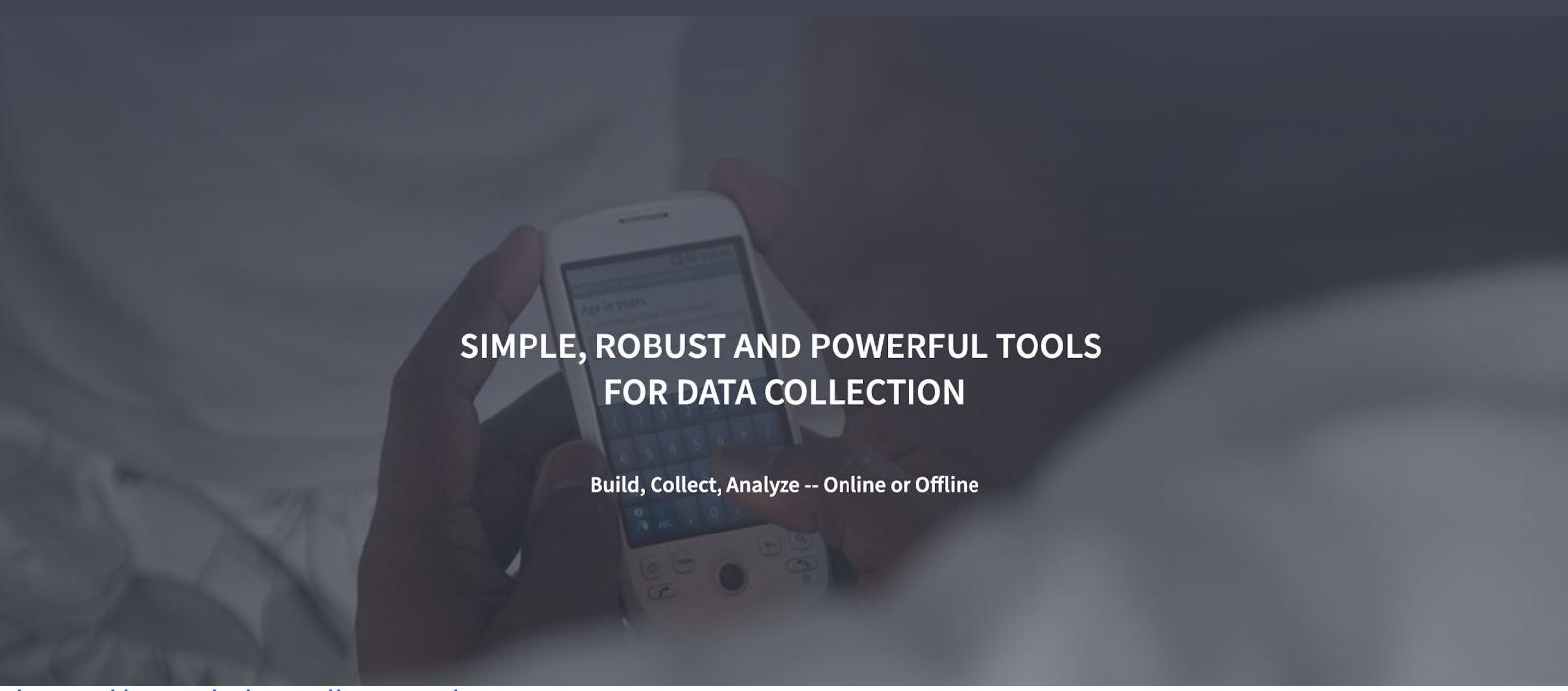
- You can add collaborators from your team members to contribute to developing the survey form.
- When you are satisfied with your design, you can click menu beside the send button or the settings and get further options.
- Lets practically explore the tool together.



Lab 3: Create a survey for your data collection project

- Using the skills you have learnt on google forms, create an online survey to collect data from the sample you have identified.
- Ensure you utilize the survey schema from Module 3.
- Feel free to adjust your schema as needed.

Using Kobo ToolBox



SIMPLE, ROBUST AND POWERFUL TOOLS FOR DATA COLLECTION

Build, Collect, Analyze -- Online or Offline

<https://www.kobotoolbox.org/>

**Kobo
ToolBox**

It is an easy-to-use formbuilder that can be used online and offline. You can monitor submissions together with other users.. Developed by Harvard Humanitarian Initiative.

Why Kobo Toolbox?

- It is easy to use.
- It free, allowing up to 10,000 submissions per month for individual users and unlimited for organizations.
- Can be used online and offline. You can share the data and monitor submissions together with other users.
- It integrates other open-source, Open Data Kit-based developments such as formhub and Enketo.



<https://www.kobotoolbox.org/>

Required Resources

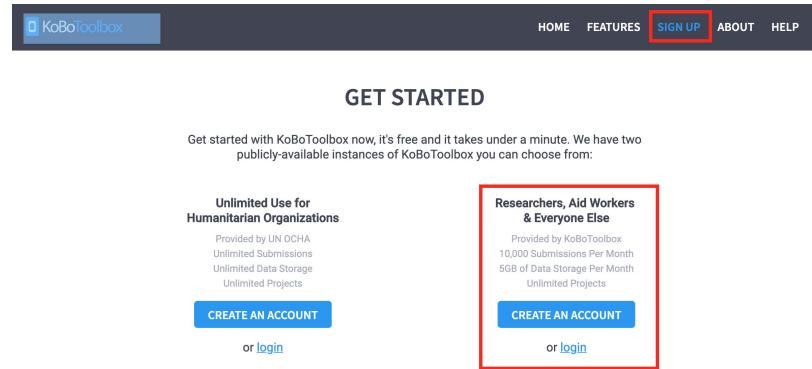
- Form outline/schema.
- Internet connection.
- Personal computer.
- Android-based mobile device (smartphone or tablet) with at least 1GB of space.
- For other phones, functional browser, preferably Google Chrome.



Source: <https://www.123rf.com>

Signing up

- Open your account or create one by clicking the sign-up or Login button under the **“Researchers, Aid Works & Everyone Else section”**
- On the page that opens up, fill in your details and create account.
- Check your email to confirm registration and activate your account.
- This opens your home page directly. If not, enter your username and password to access your account.



For more information on the differences between the two servers and to help determine which one is right for you, please read our [Which Server Should I Use?](#) support article.

Advanced users can also install KoBoToolbox on their own server (or on a local machine) using Docker. See our [kobo-install](#) repository on GitHub for details.

<https://www.kobotoolbox.org/>

Cell Phone vs Toilet Survey

- Please fill the form below
[https://ee.kobotoolbox.org/x/
#qhXR8jkm](https://ee.kobotoolbox.org/x/#qhXR8jkm)
- Let us recreate this simple questionnaire to carry out a survey to test the hypothesis that there are more cell phones than toilets in Nepal.

Cellphone vs Toilet Survey

* Name of the household representative

* Age of the household representative

* Number of household members

* Do you have a toilet accessible to you in your vicinity?
 Yes
 No

Do any of your household members own a mobile phone?
 Yes
 No

* Picture of house
 Click here to upload file. (< 10MB) 

Additional comment

Geographic location

latitude (x,y °)

longitude (x,y °)

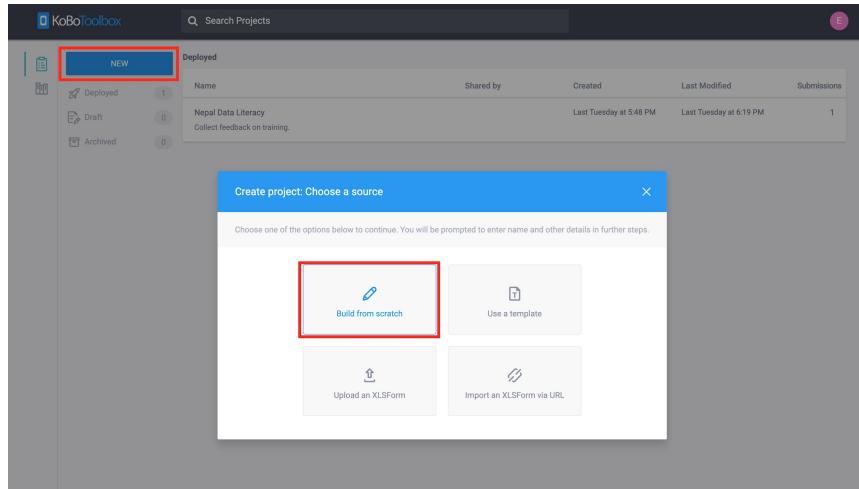
altitude (m)

accuracy (m)

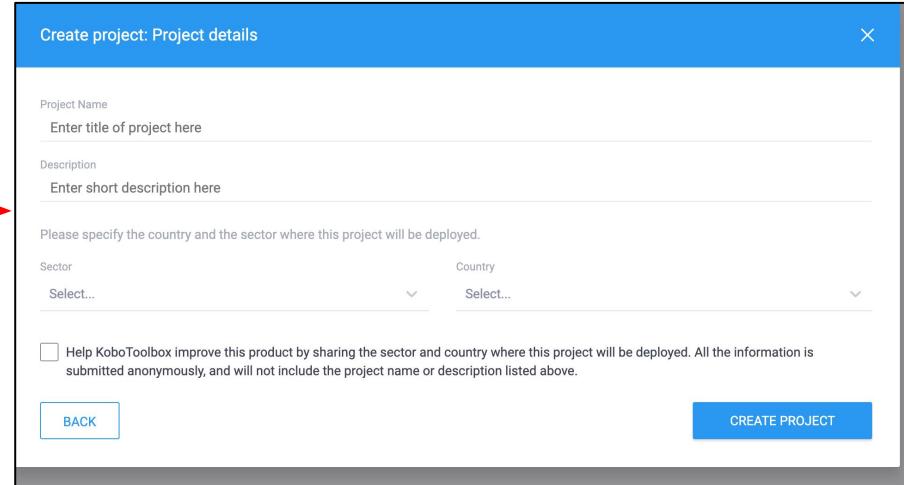
search for place or address  



Creating your Questionnaire



Click on “New”, a window will pop up with options - choose “build from scratch”. We will be building from scratch, to learn how the form builder works.



Click ‘build from scratch’ and a new window will open giving you an option to enter your project details. Fill in your team project details.

Creating your Questionnaire

- A blank form will open - Click on the + sign to add.
- Click on the **add question tab** and an array of different kind of question options are available to choose from.
- Take time to explore the different option the different question option from text, to date, to geographic information to recording, pictures, video and a lot more.

The screenshot shows a digital platform for creating questionnaires. At the top, there's a header for 'Project Unit 9: Feedback Survey'. Below the header, there are three small icons with red boxes around them: a magnifying glass, a document, and a person icon. In the center, there's a large empty rectangular area for a question, with a red arrow pointing to a blue '+' button below it. To the right of the question area are buttons for 'SAVE' and 'X'. Below the question area, there are two buttons: 'Add from Library' and 'Layout & Settings'. At the bottom of the screen, there's a green bar with the text '+ Add Question' and a red 'x' icon. The entire interface is framed by a large red border.

Project
Unit 9: Feedback Survey

SAVE X

Add from Library Layout & Settings

+ Add Question x

Select One
1.0 Decimal
Point
Line
Area
1+1 Calculate

Select Many
Date
Photo
Note
Rating
File

abc Text
Time
Audio
Barcode / QR Code
Question Matrix

123 Number
Data & time
Video
Acknowledge
Ranking

Creating your Questionnaire

- A few things to note on when creating your form is that you can preview form created so far, delete, duplicate, add to the library and set the question validation criteria and skip logic through the settings button.

The screenshot shows a questionnaire creation interface with the following elements:

- Project Title:** Unit 9: Feedback Survey
- Preview and cascade:** A button highlighted with a red box.
- Add new question:** A button highlighted with a red box.
- Question List:** A list of five questions:
 - Record the location of the farm (Geographic coordinate)
 - Use the camera's microphone to record a sound (Question hint)
 - Use the camera to record a video (Question hint)
 - Record a line (Question hint)
 - Record an area (Question hint)
- Settings Panel:** A sidebar on the left with a red box around it, containing:
 - Settings (radio button selected)
 - Question Options
 - Skip Logic
 - Validation Criteria
- Right-hand Panel:** Various configuration fields:
 - Data Column Name: Record_the_location_of_the_far
 - Guidance Hint: (empty field)
 - Mandatory Response: Yes
 - Default Response: (empty field)
 - HXL: #tag Attributes (empty field)
 - Appearance (Advanced): (empty field)
- Toolbar:** Includes buttons for Add from Library, Layout & Settings, Save, and Close.
- Contextual Menu:** A red circle highlights a context menu on the right side of the interface, listing:
 - Settings
 - delete
 - Duplicate
 - Add question to library

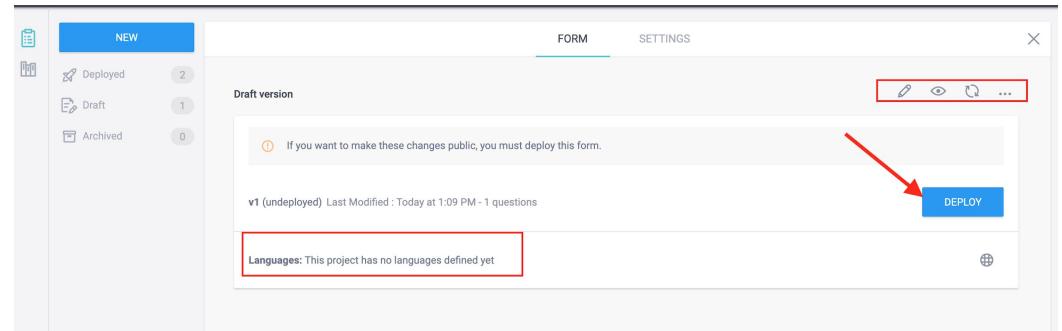
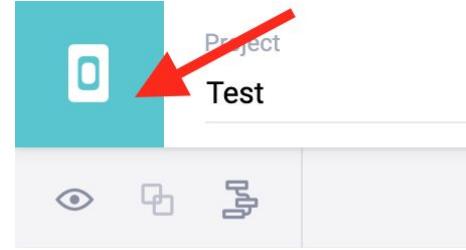
Creating your Questionnaire

- When you are done creating your form. Preview it and then click the button underneath the form to validate that there are no errors on the form created.
- Save your form by clicking the save button on the top-right corner of the page.
- Click [here](#) to know more about advanced form building.

The screenshot shows the 'Form Preview' window of the Enketo application. The title bar indicates the project is 'Unit 9: Feedback Survey'. In the top right corner, there are 'SAVE' and 'X' buttons, along with 'Add from Library' and 'Layout & Settings' options. The main area is titled 'Record an area' and contains fields for 'latitude (x.y °)', 'longitude (x.y °)', 'altitude (m)', and 'accuracy (m)'. To the right of these fields is a map of Cape Town with a polygon drawn on it. Below the map is a 'close polygon' button. At the bottom right of the preview window is a blue '✓ Validate' button, which is highlighted with a red border. The footer of the window says 'Powered by ENKETO'.

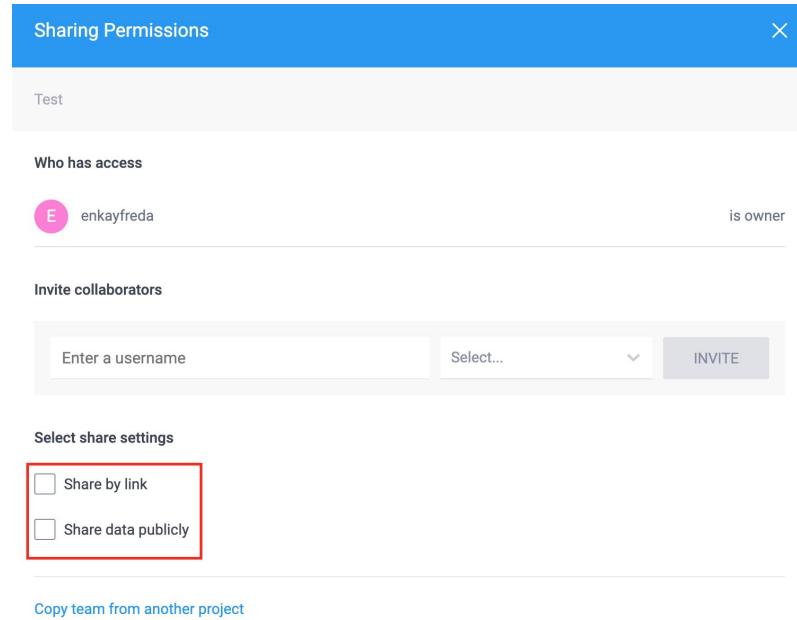
Deploying your Questionnaire

- Now you have saved your form, click on return to list - a green tab that is on the top-left corner of the page
- On the window that opens, **click deploy** to get a live version of your form.
- You can change the language of your form, preview the form again, edit it and other settings.



Deploying your Questionnaire

- After deploying, click on the three dot sign on the top corner to open options for you to download form, share the project and other options. Click on share the project
- A new window opens giving you options to add collaborators. You can choose to share to them by link. Or choose to share publicly for respondents.



Managing your responses

- You can view your responses by clicking on the deployed form in your account. A window comes up allowing you to view your form by summary, form, data and carry out further edits.
- Viewing your responses as data, you can view it on a table, download or view on a map if you had location values on your questionnaire.

The screenshot shows the KoboToolbox interface for managing a deployed survey. The top navigation bar includes 'KoboToolbox', the survey title 'Unit 9: Feedback Survey', and a notification badge indicating '1 submissions'. Below the title, there are tabs for 'SUMMARY', 'FORM', 'DATA', and 'SETTINGS', with 'SUMMARY' being the active tab. On the left, a sidebar shows project status: 'Deployed' (2), 'Unit 9: Feedback Survey' (Nepal Data Literacy), 'Draft' (0), and 'Archived' (0). The main content area displays the survey's description, which mentions collecting feedback from participants of the Nepal Data Literacy program. It also shows a bar chart of submissions over the past 31 days, with one submission on August 18. The 'Data' section on the right provides links to 'Reports', 'Table', 'Gallery', 'Downloads', and 'Map'.

Managing your responses

- Viewing your responses as data on a table will look like this.
- Viewing your data on a map could look like this. You have the option of showing as a heat map or point.
- Take time to explore this.

The screenshot displays the KoboToolbox platform interface, illustrating two ways to manage survey responses:

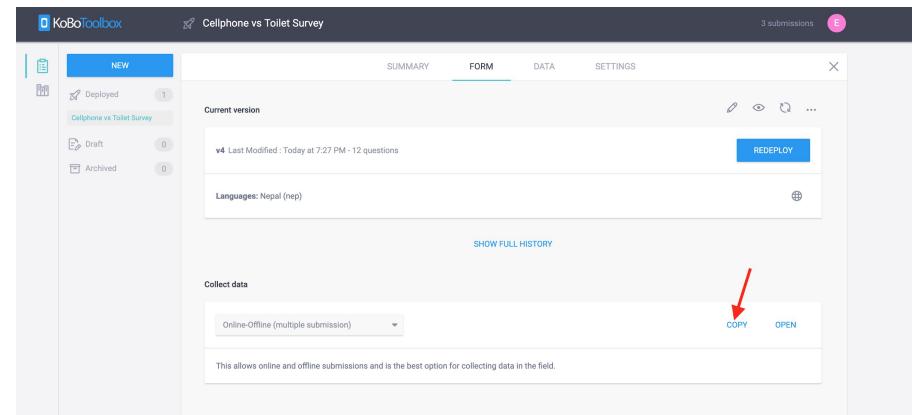
Left Panel (Data Management): A sidebar menu on the left lists five options: Reports, Table, Gallery, Downloads, and Map. The "Table" option is highlighted with a red box.

Top Right (Data View): A table view titled "DATA" shows two survey results. The columns include Validation status, start, end, Record the location, Use the same location, Record a line, and Record an area. The data rows show coordinates (-33.939184, -33.939128) and (-33.939197, -33.939041).

Bottom Right (Map View): A map titled "Unit 9: Feedback Survey" shows a geographic area with various locations marked. A legend indicates "Deployed" (green), "Draft" (blue), and "Archived" (grey). A "Map" button in the sidebar is also highlighted with a red box. A heatmap overlay is visible on the map, with a red circle indicating a high concentration of responses.

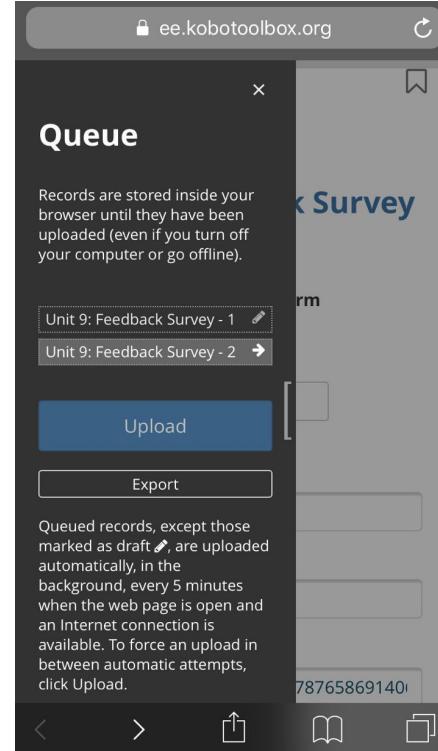
Using your Phone/Tablet to deploy your form

- Generate the public link to be filled by clicking on the copy tab. You can share this with your respondents
- Open this link on your web browser and save link to the home screen of your phone. You can go ahead to fill the form either online or offline.
- The form can be saved as a draft to be reviewed later or submitted directly ones done.



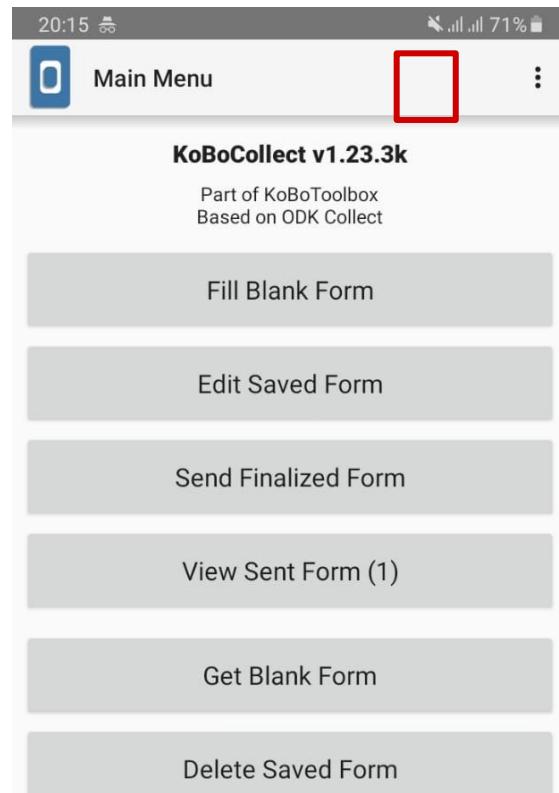
Using your Phone or Tablet for your field survey.

- Filled forms will be uploaded directly to the database of your account accessible by the admin of the account.
- For offline submissions, the forms will be uploaded automatically once in an area with internet.
- With this you can carry out as many data collection project at the same time from one account.



Using KoBocollect - Android based survey app.

- Download [KoBocollect](#)
- Click on the menu icon on the top right corner and choose “general settings”. On the screen that opens click “server settings”
- Input the Kobo toolbox URL -
<https://kc.kobotoolbox.org>
- Create an account and put in your account details
- Go back to home page and click “get blank form to see all your deployed forms”



Thank you
&
Congratulations!!!

Lab 3: Team Work: Using Kobo ToolBox

- Here you will utilize the skills learnt in this module to create your online questionnaire and deploy it live in the class.
- Build your form using your team's pre-designed survey schema
- Deploy your form on your mobile phones and get 10 people to fill it or collect 10 responses to your form
- Ensure that one of your form questions is to collect a gps coordinate
- Show these coordinates on a heat map from the KTB tool



Photo: <https://pixabay.com/>