

Data Collection Lab 1: Designing Survey Schema

For this lab exercise, we are going to design a survey schema to be used a for students services satisfaction survey at the Local Government Training Institute (LGTI) Hombolo campus. This survey seeks to collect students' opinion on 4 services (library, hostel, dispensary and lecture halls) that are offered on the LGTI campus in order to understand service offerings opinions from the student perspective. It is an anonymous survey. This survey is made up of 4 main sections.

This lab exercise focuses on building skills in the “Design Questionnaire” stage of the Data Collection Pipeline. Refer to the Data Collection Student Manual if you are not familiar with any of the concepts in the lab exercises below.

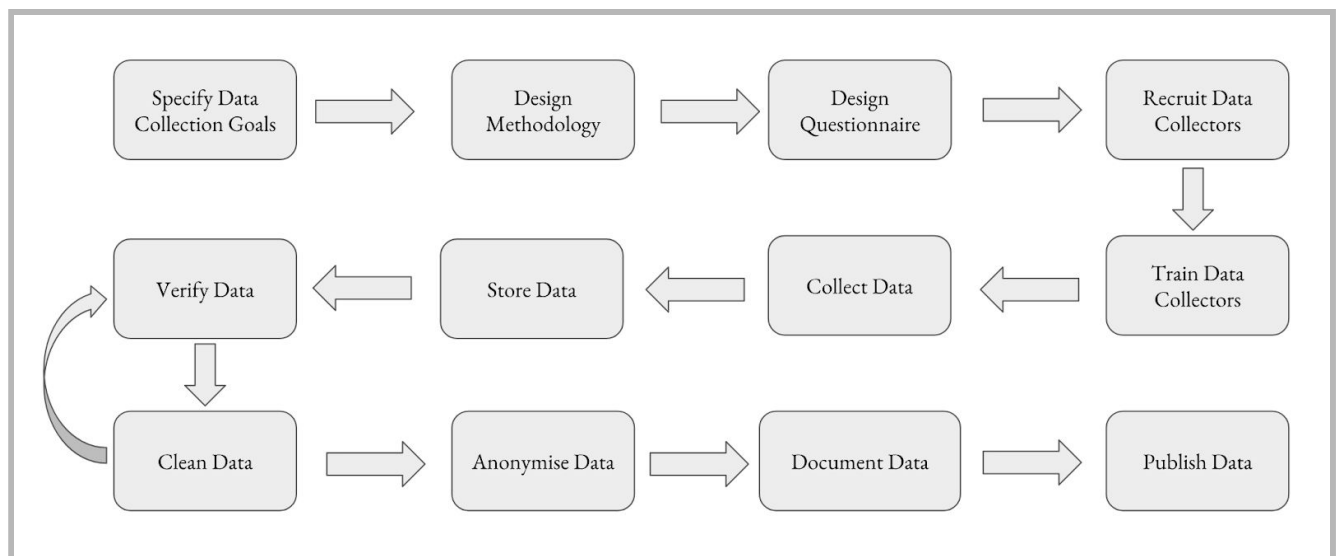


Figure 1: The Data Collection Pipeline

The survey schema is the document that contains the the questions and structure of the survey for the data collection.

Getting Started

Before moving forward, make sure you have access to a word processor (Microsoft Word, LibreOffice Writer or Google Docs). If not, you can use a piece of paper or board but will have to transfer your output and process to a word processor later.

Task 1: Create Survey Sections

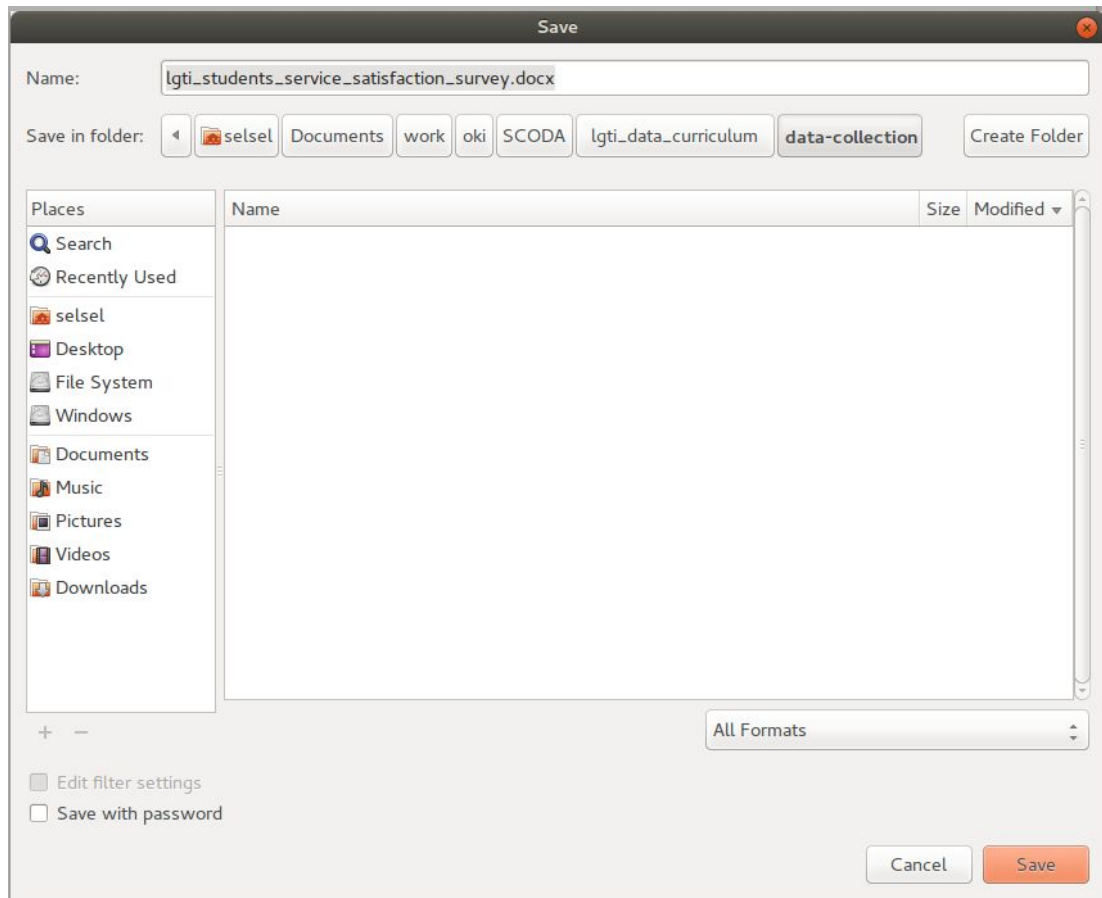
Our survey will be made of up 4 main sections:

1. Demographic Information
2. Service Physical Characteristics
3. Service Process
4. Service Personnel

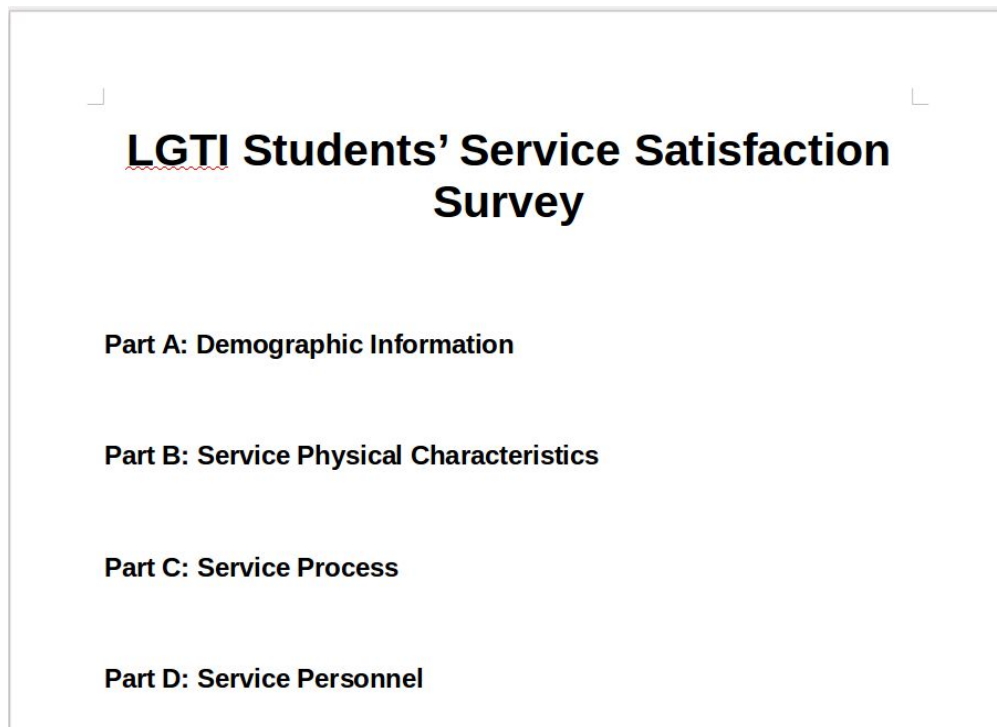
Let's start by creating these sections. Here are the steps:

1. Open your word processor of choice (I will be using LibreOffice Writer)
2. Give your document a title "LGTI Students' Service Satisfaction Survey" using the Title format style
3. Save your document as "lgti_students_service_satisfaction_survey_v1" where **v1** represents Version 1.

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4. Create the 4 sections as shown below using the Heading 2 style.
5. Your document should look similar to the image below.



6. Now we will include questions to ask under each of the sections. For Part A: Demographic Information include the following questions as ordered bullets:

- a. Age
- b. Sex
- c. Marital status
- d. Do you have a physical challenge?
- e. What programme are you studying?
- f. Where do you stay?

Here is an example of what it should look like:

LGTI Students' Service Satisfaction Survey

Part A: Demographic Information

1. Age

2. Sex

3. Marital Status

4. Do you have a physical challenge?

5. What programme are you studying?

6. Where do you stay?

Part B: Service Physical Characteristics

Part C: Service Process

Part D: Service Personnel

7. For **Part B: Service Physical Characteristics**, include the following questions:

How do you see these LGTI **infrastructure**?

- a. Library
- b. Hostel
- c. Dispensary
- d. Lecture Halls

8. For **Part C: Service Process**, include the following questions:

How do you see these LGTI **service delivery processes**?

- a. Library
- b. Hostel
- c. Dispensary
- d. Lecture Halls

9. For **Part D: Service Personnel**, include the following questions.

How do you see these LGTI **service personnel**?

- a. Library
- b. Hostel
- c. Dispensary
- d. Lecture Halls

The completed should look similar to the image below:

Part B: Service Physical Characteristics

How do you see these LGTI infrastructure?

- a. Library
- b. Hostel
- c. Dispensary
- d. Lecture Halls

Part C: Service Process

How do you see these LGTI service delivery processes?

- a. Library
- b. Hostel
- c. Dispensary

- d. Lecture Halls

Part D: Service Personnel

How do see these LGTI service personnel?

- a. Library
- b. Hostel
- c. Dispensary
- d. Lecture Halls

Task 2: Add Question Format and Choices

In this section, we will add information to each question that describes the format of responses and how the questions need to be created in the final survey. This will be based on the question types/formats we learned about in the KoBo Toolbox student manual section.

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NB: In practice, the data collection team being led by the survey designer will discuss the appropriate question formats and response types before and during the stage before final iteration. Coming up with a final format could take multiple iterations.

The format for entering the format is as follows:

[response type, requirement type, validation format] Question

- Answer options

Examples

Let's use question 1 from Part A: Demographic information as an example. Currently we have:

1. Age

Now we update it with details of the question format as the following:

1. [**number, mandatory, validation between 0 and 150 not included**] Age

Where response type is **number**; requirement type is **mandatory**, and validation format is **"between 0 and 150 not included"**.

As an additional example, question 2 should become:

2. [choose one, mandatory] Sex
 - a. Female
 - b. Male

Learner Task: Part A

Complete the question formats for the questions under Parts A, using the following information:

3. [choose one, optional] Marital status
 - a. Single
 - b. Married
 - c. Divorced
 - d. Widowed

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4. [select one, mandatory] Do you have any physical challenge (deaf, blind etc)?
 - a. Yes
 - b. No
5. What programme are you studying?
 - a. Diploma
 - b. Technician Certificate
 - c. Basic Technician Certificate
6. [choose one, mandatory] Where do you stay?
 - a. On-campus
 - b. Off-campus

Including Additional Questions for More Details

If you pay attention to question 4, it will be great to have more detail about what type of physical challenges respondents who respond “Yes” have. We will now go ahead and add an additional question as question 5:

5. [select all applicable, optional] What are your physical challenges?
 - a. Deaf
 - b. Blind
 - c. Cripple
 - d. Amputee
 - e. Other

With the inclusion of the “**Other**” option in question 5, we need to provide an option for respondents to enter other physical challenges that are not included in the options in question 5. There are several ways that can be achieved depending on the tool being used to develop the survey. In this instance, we will create another question below question 5 with a text format.

6. [text, optional] Specify other physical challenges you have.

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You should now have a total of 7 questions for Part A: Demographic information.

Part A: Demographic information

1. [number, mandatory, validation between 0 and 150 not included] Age
2. [choose one, mandatory] Sex
 - a. Female
 - b. Male
3. [choose one, optional] Marital status
 - a. Single
 - b. Married
 - c. Divorced
 - d. Widowed
4. [select one, mandatory] Do you have any physical challenge (deaf, blind etc)?
 - a. Yes
 - b. No
5. [select all applicable applicable, optional] What are your physical challenges
 - a. Deaf
 - b. Blind
 - c. Cripple
 - d. Amputee
 - e. Other
6. [text, optional] Specify other physical challenge
7. [select one, mandatory] What programme are you studying?
 - a. Diploma
 - b. Technician Certificate
 - c. Basic Technician Certificate
8. [choose one, mandatory] Where do you stay?
 - a. On campus
 - b. Off-campus

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You should notice that Part B, C and D have a similar question format. We could use a question format where each question under each section becomes an individual question. Here's an example for part B:

How do you see these LGTI **infrastructure**?

- Library
 - Excellent
 - Good
 - Moderate
 - Poor
 - Never Seen
- Hostel
 - Excellent
 - Good
 - Moderate
 - Poor
 - Never Seen
- Dispensary
 - Excellent
 - Good
 - Moderate
 - Poor
 - Never Seen
- Lecture Halls
 - Excellent
 - Good
 - Moderate
 - Poor
 - Never Seen

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This works fine to some extent but when you observe, there is a lot of repetition of the same response choices. Instead we can use a grid format for this question to reduce the repetition.

[tick grid, mandatory] How do you see these LGTI infrastructure? (Tick to the correct answer)

Service Physical Evidence	Excellent	Good	Moderate	Poor	Never Seen
Library					
Hostel					
Dispensary					
Lecture Halls					

Repeat the process for Part C and D which should produce the following:

Part C: Process

[tick grid, mandatory] How do you see these LGTI service delivery processes? (Tick to the correct answer)

Service Delivery Process	Excellent	Good	Moderate	Poor	Never Used
Library					
Hostel					
Dispensary					
Lecture Halls					

Part D: Personnel

[tick grid, mandatory] How do you see these LGTI service providers? (Tick to the correct answer))

Service Providers	Excellent	Good	Moderate	Poor	Never Experienced
Library					
Hostel					
Dispensary					
Lecture Halls					

Task 3: Adding Skip Logic

Another important part of a survey schema is indicating the next question a respondent should answer based on previous responses. This is called **Skip Logic**. Indicating this on our schema makes it easy to create the final survey without having to worry about the flow of the survey. This greatly improves the design process and also the overall survey structure.

Let take a look at Part A: Demographic information from our survey. You may have noticed that respondents who select “**No**” for question 4 do not need to answer question 5, “*What are your physical challenges?*”. This is a place to insert a Skip Logic in the design of the survey.

There are two ways to indicate a Skip Logic in a survey schema. The first option is to indicate the Skip Logic in the prior question as shown below. In this case, the prior question is Question 4:

4. [select one, mandatory] Do you have any physical challenge (deaf, blind etc)?
 - a. Yes => **Continue to question 5**
 - b. No => **Skip to question 7**

 5. [select all applicable applicable, optional] What are your physical challenges
 - a. Deaf
 - b. Blind
 - c. Cripple
 - d. Amputee
 - e. Other

NB: Skip Logic in bold text

The second option is to indicate the Skip Logic within the generated question as below. For this example, the generated question is **Question 5**:

4. [select one, mandatory] Do you have any physical challenge (deaf, blind etc)?
 - a. Yes
 - b. No

 5. [select all applicable applicable, optional] **If Yes in 4**, What are your physical challenges
 - a. Deaf
 - b. Blind
 - c. Cripple
 - d. Amputee
 - e. Other

NB: Skip Logic in bold text

For this lab exercise, we will employ the second option due to its conciseness and easier application to the data collection tool we will be using. However, either option works fine.

Learner Task

Question 6: Specify other physical challenge requires a Skip Logic. Using either option 1 or 2, indicate the right format.

Task 4: Survey Verification Data

One of the powerful features of mobile data collection tools today is the ability to record location, image, sound or video information for respondents. This data can prove very useful for several stages of the data collection process including verification, cleaning analysis or presentation.

For this survey, we will create an additional section Part E to record the following data points:

- Respondent Location
 - To indicate survey collection distribution or coverage.
- Survey Location Photo
 - To confirm data collector field work or presence at indicated data collection location
- Data Collector Name
 - For feedback or later data verification

Learner Task: complete the question format similar to that done in Task 2 for Part A - D.

Part E
[_____, _____] Respondent Location
[_____, _____] Survey Location Photo
[_____, _____] Data collector Name

The completed question format for Part E should look similar to this below:

Part E
[<u>GPS Point</u> , <u>optional</u>] Respondent Location

[**Image, optional**] Survey Location Photo

[**Select one, mandatory**] Data collector Name

It is important to understand the choice for the question formats used above. For instance, you should be able to convince yourself why a GPS Point or Image question should be **Optional** and not mandatory. Review the Data Collection Student Manual if you are still not sure.

In the same way, you may have chosen to use a **Text** format for the Data Collector Name question to allow each data collector to manually enter their name. However, a better option will be to pre-enter the data collectors names and provide that as a **Select One** option since there will be a known and fixed number of data collection for each data collection project. This not only reduces the extra work that data collectors need to do in entering their names each time they talk to a respondent, but also **reduces the potential errors that may be introduced by manual entry of text.**

Task 5: Including Description and Instructions

At the stage we are almost done with our draft. However we are still missing a minor but important details. A crucial part of any survey project is clearly explaining to the respondents the details of the survey in order to allow them decide whether they will participate or not.

This is something data collectors must and we must make their work easier by making this information readily available within the survey tool. In this task, we will add a survey description and instructions to each section.

Let start with the survey background or context. We know that this service will:

- Focusing on 4 main LGTI services (library, hostel, dispensary and lecture halls)
- Will be anonymous for the respondents
- Will be made up of 4 main sections with about 22 questions.
- Should last about 10 mins to complete

We can take all this information and turn that into a Survey Background Section to be placed at the topic of the schema.

Background/Context

- This is a survey that seeks to collect _____ opinion on **services**

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(-----)
that are offered on the LGTI Hombolo campus.

- It is an **anonymous survey** so opinions cannot be assigned to you specifically. Feel at ease to share.
- This survey is made up of ___ **main sections** and will involve at most ____ **questions**. I anticipate it will take **about** ____ **mins**.

Part A: Demographic Information section is quite easy to understand what information is being requested. However for Part B, C and D, it can be unclear what the survey means by services, infrastructure, process or personnel. Having a description or explanation of some of these terms is helpful to the data collector but also ensures that each respondent is also using the same definitions in responding to the survey.

Below is an explanation of what Part B - D are about and what is expected.

The following sections ask you information about the library, hostel, dispensary and lecture hall services provided at LGTI Hombolo Campus. We have separated services into 3 main sections: service infrastructure, service process and service personnel.

- **Service Infrastructure:** this has to do with the state of the infrastructure (physical or digital that houses or host this service). **For example, in the case of the library, this can be the library building or online/digital resources associated with the library service.**
- **Service Process:** this has to do with the processes involved in using this service including the number of steps required to perform a specific task. **For example, in the case of the library, this can be the process of checking out a resource (book, device) from the library.**
- **Service Personnel:** this has to do with your experience engaging with the individuals or personnel that provide the service. **For example in the library, this can be the experience of interacting with the library staff.**

NOTE: Confirm that the respondent is clear on the definitions being used in this survey. Ask them to repeat their understanding to you if needed.

Learner Task

The explanation above used examples of the library service to explain the differences between the three main sections: infrastructure, process and personnel. These are the bold texts above.

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Task: Select another service on the LGTI campus and provide three examples that help differentiate between a service infrastructure, process and personnel.

The following sections ask you information about the library, hostel, dispensary and lecture hall services provided at LGTI Hombolo Campus. We have separated services into 3 main sections: service infrastructure, service process and service personnel.

- **Service Infrastructure:** this has to do with the state of the infrastructure (physical or digital that houses or host this service). **For example,**

- **Service Process:** this has to do with the processes involved in using this service including the number of steps required to perform a specific task. **For example,**

- **Service Personnel:** this has to do with your experience engaging with the individuals or personnel that provide the service. **For example,**

This brings us to the end of the lab exercise. The final document should be similar if not identical to that in Appendix 1 below. Review your Data Collection Student Manuals if there is any concept that was not clear.

APPENDIX 1: LGTI STUDENTS' SERVICE SATISFACTION SURVEY SCHEMA

Background/Context

- This is a trial survey that seeks to collect students' opinion on 4 services (library, hostel, dispensary and lecture halls) that are offered on the LGTI Hombolo campus.
- It is an anonymous survey, so opinions cannot be assigned to you specifically. Feel at ease to share.
- This survey is made up of 4 main sections and will involve at most 22 questions. I anticipate it will take about 10 mins.

Part A: Demographic information

1. [number, mandatory, validation between 0 and 150 not included] Age
2. [choose one, mandatory] Sex
 - a. Female
 - b. Male
3. [choose one, optional] Marital status
 - a. Single
 - b. Married
 - c. Divorced
 - d. Widowed
4. [select one, mandatory] Do you have any physical challenge (deaf, blind etc)?
 - a. Yes
 - b. No
5. [select all applicable applicable, optional] If Yes in 4, What are your physical challenges
 - a. Deaf
 - b. Blind
 - c. Cripple
 - d. Amputee

- e. Other
6. [text, optional] If Other in 5, Specify other physical challenge
7. [select one, mandatory] What programme are you studying?
 - a. Diploma
 - b. Technician Certificate
 - c. Basic Technician Certificate
8. [choose one, mandatory] Where do you stay?
 - a. On campus
 - b. Off-campus

The following sections ask you information about the library, hostel, dispensary and lecture hall services provided at LGTI Hombolo Campus. We have separated services into 3 main sections: service physical evidence, service delivery process and service providers.

- **Service Physical Evidence:** this has to do with the state of the infrastructure (physical or digital that houses or host this service). For example, in the case of the library, this can be the library building or online/digital resources associated with the library service.
- **Service Delivery Process:** this has to do with the processes involved in using this service including the number of steps required to perform a specific task. For example, in the case of the library, this can be the process of checking out a resource (book, device) from the library.
- **Service Providers:** this has to do with your experience engaging with the individuals or personnel that provide the service. For example in the library, this can be the experience of interacting with the library staff.

NOTE: Confirm that the respondent is clear on the definitions being used in this survey. Ask them to repeat their understanding to you if needed.

Part B: Physical Evidence

How do you see these LGTI infrastructure? (Tick to the correct answer)

Service Physical Evidence	Excellent	Good	Moderate	Poor	Never Seen
Library					
Hostel					
Dispensary					
Lecture Halls					

Part C: Process

How do you see these LGTI service delivery processes? (Tick to the correct answer)

Service Delivery Process	Excellent	Good	Moderate	Poor	Never Used
Library					
Hostel					
Dispensary					
Lecture Halls					

Part D: People

How do you see these LGTI service providers? (Tick to the correct answer)

Service Providers	Excellent	Good	Moderate	Poor	Never Experienced
Library					
Hostel					
Dispensary					
Lecture Halls					

Part E:

[GPS Point, optional] Respondent Location

[Image, optional] Survey Location Photo

[Select one, mandatory] Data collector Name