

## Unit 2 Lab

### Four Parts to Creating a Questionnaire

1. **Preparation** – choose the topic, form a hypothesis, study existing literature on the topic.
2. **Design** – sampling (who will be surveyed); questionnaire design (turning the objectives of the survey into questions that will give relevant information)
3. **Fieldwork** – administering the questionnaire and collecting data
4. **Processing** – coding and inputting data; statistical analysis of the data, interpreting the results, drawing conclusions, and writing the report.
  - Try to prevent your own theories, values, and biases from interfering with the research process
  - Use careful and correct reasoning in drawing conclusions from the data
  - Carry out the research in an organized and methodical manner

### Step 1 – Define the Problem

Once you have selected a topic, you need to develop operational definitions of key concepts. The definition must be stated in measurable key concepts

### Step 2 – Review the Literature

Once you have defined your topic, you need to research what others have written on the subject. To determine how others have approached your topic and what conclusions have been reached, you need to review the published reports of studies that have a bearing on the research topic you have selected. Research will provide insight and help you avoid unnecessary duplication of research efforts.

### Step 3 – Form a Hypothesis

After the literature review, you need to develop a testable hypothesis. The hypothesis should be:

- A statement that predicts the relationship between two or more variables
- Clearly stated and simple, using appropriate terminology
- Testable
- Limited in scope and able to be expressed in one sentence

### Step 4 – Choose a Research Design

How will you collect, analyze, and evaluate data? For this project you will use a survey. Specifically, you will use a self-completing questionnaire. Individuals will answer the questions privately, with little to no need for the researcher's presence. This can also be called a "postal questionnaire". (see *Types of Questions* Handout)

- Create a Pre-Test or Pilot Survey. This will check instructions, clarity, time, and coding of answers.
- Gather the Sample. Since we cannot survey the entire school, you must choose a small number from the larger school population. Normally, we would look for a random sample. For this topic, we will be surveying volunteers picked from our school community.
- Prepare the Questionnaire.
  - Identify and research the topic. What information is needed and from whom the information may be obtained?
  - Prepare the questions and structure. What type of questions will need to be used?
  - Identify the population to be surveyed. Draw up the sampling frame.

**Step 5 – Collect the Data**

Carefully record the information. Careless data collection can affect the accuracy of research findings.

- Conduct the Questionnaire. Schedule a time to give the survey. Limit contact with those filling out the survey.

**Step 6 – Analyze the Data**

Once the data has been collected, you are ready to begin analyzing the data.

- Decode the Questionnaire information. Give a numerical value to each response in the preparation phase of the research. Decode the finished surveys. We will use a statistical analysis program or spreadsheet.
- Statistical Analysis of the Data. Averages, frequency and measures of central tendency will be used. Identify variables involved to search our causal relationships.

**Step 7 – Present Conclusions.**

After analyzing data, draw conclusions from the data. Discuss how you arrived at these conclusions and the importance of evidence. Prepare a short written response that includes the background and purpose of the research, a literature review, a hypothesis, the research design, what the questions measured, how they were coded, problems encountered during research, measuring variables, data analysis, tables, graphs, a conclusion, and sources or references.