

Practical Research 2

Quarter 2-Module 5

Data Collection Procedure



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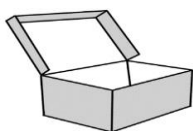
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What I Need to Know

Hello Grade 12 researchers! In this fifth module for the 2nd grading period, you will learn how to:

Plan data collection procedures (CS_RS12-IIa-c-5)

You can say that you have understood the lesson in this module if you can already:

1. define quantitative data;
2. enumerate and characterize the different types of data collection method; and
3. create a data gathering plan.



What I Know

Answer the following questions. Select your answers from the options provided. Encircle the letter of your choice.

1. Which of the following words refers to a piece of information?
A. Data
B. Datum
C. Gossip
D. Knowledge
2. What type of data collection method gathers information using your sensory organs?
A. Analysis of data
B. Content analysis
C. Observation
D. Survey
3. What word refers to a set of written questions with a choice of answers?
A. Questionnaire
B. Research
C. Survey
D. Test
4. Which of the following does NOT belong to the group of data collection methods?
A. Experiment
B. Interview
C. Observation
D. Survey
5. Which of the following is described as unpublished data?
A. Articles
B. Books
C. Primary data
D. Secondary data



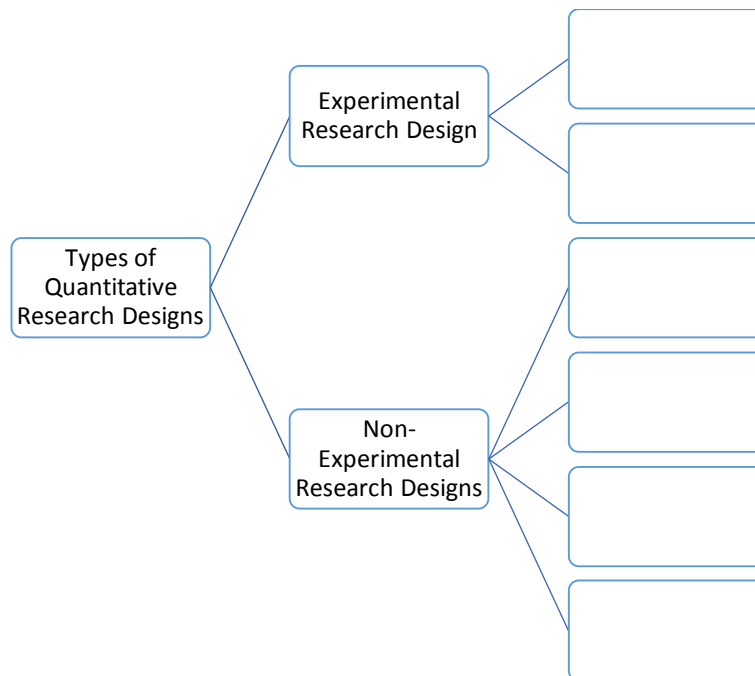
Lesson 1

Data Collection Procedure



What's In

Before we start with the lesson, let us first review the different types of quantitative research designs. What are the types of experimental and non-experimental research designs? Write these on the chart below.



What's New

A. Before Reading Activity

Have you experienced answering a survey? What comes in your mind when you hear the word “survey”?

B. During Reading Activity

Examine the sample survey below.

Please rate our product or services for the following parameters:				
Variables	Very Satisfied	Satisfied	Dissatisfied	Very Dissatisfied
Quality				
Speed				
Value for money				



C. After Reading Activity

After you examined the above sample survey, what do you think is the research topic? Defend your answer. Use the lines provided for your answer.



What is It

Plan Data Collection Procedure

To help you find the answers to your developed research questions, you must understand the different methods of data collection, its uses, and appropriateness to your chosen research design.

You must remember the two classifications of data which are primary data and secondary data. Primary data are those unpublished sources of data that are collected personally by the investigator or by the researcher utilizing different methods like using questionnaires, conducting interviews, observations and many others. Here, the respondents supply the data or information about the research problem such as facts, attitudes, feelings, judgments, psychomotor skills, and results of test and experiments. On the other hand, secondary data are sources of data which are published by other people such as books, records, newspapers, data archives, internet articles, research articles, journals, databases and more.

As defined, quantitative data are pieces of measureable information expressed numerically and related to a metrical system that become useful as they give answers to your research questions. (Davidson n.d.; Russell 2013; Creswell 2013). Based on this definition, quantitative data is numerical in nature and can be mathematically computed (Kabir 2016).

Why do you think it is important for the researcher to understand the sources of data?

Methods of Quantitative Research

1. Survey

The most popular data gathering method often uses a predetermined set of questions that is given to a sample to assess thoughts, opinions, and feelings. There are two data-gathering instruments that can be used in this method. First is using questionnaires, which are structured sets of questions that are answered by participants, that can be administered electronically, by mail, by phone or face-to-face. Another is by conducting a structured or standardized interview in which the researcher is the interviewer that collects the data by orally asking a set of structured questions to the research participant or the interviewee. Aside from face-to-face, the other forms of interview are through the use of telephone or other electronic devices. Responses collected from these instruments will be subjected to statistical analysis.



2. Experiment

This method of collecting data is the most rigorous in which it requires the scientific method in testing a hypothesis, the cause and effect relationship of certain phenomena under controlled conditions. There are three features in this method. First, the researcher will manipulate the independent variable(s). Second, subjects will be randomly assigned to different treatment levels. And third, the dependent variables will be observed based on the results after the treatment (Bhattacharjee 2012). More so, this method having the elements of subjects, pre-test, treatment, and post-test do not operate only for examining causal relationships, but it can also be used for discovering, verifying, and illustrating theories, hypothesis, or facts (Edmond 2013; Morgan 2014; Picardie 2014).

3. Content Analysis

Content analysis is a quantitative data-collection method that makes the researcher search through several oral or written forms of communication to find answers to their research questions. For Byrman (2008), it is “an approach to the analysis of documents and texts that seeks to quantify content in terms of predetermined categories and in a systematic and replicable manner.” Therefore, instead of collecting data from people, you are gathering data from recorded information in text, media, or physical items.

Among the three methods, which is the most appropriate to your study? Explain your answer.

Design a Plan for Procedures to be used in Data Collection

❖ Research Design

- ✓ Indicate the reasons why you opt to use a particular research design.
- ✓ Specify the form of data collection and your rationale.

❖ Population and Sample

- ✓ Describe the population in the study.
- ✓ Identify how individuals will be selected and describe the sampling procedure.

❖ Research Instrument

- ✓ Identify the survey instrument to be used in your study.
- ✓ Indicate the parts and its content.

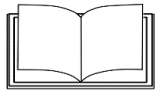
❖ Data Gathering Procedure

- ✓ Narrate the procedure of data gathering needed for your study. Proper channeling and communications must be observed.

❖ Data Analysis

- ✓ Discuss the statistical treatment to be used for analyzing the collected data.



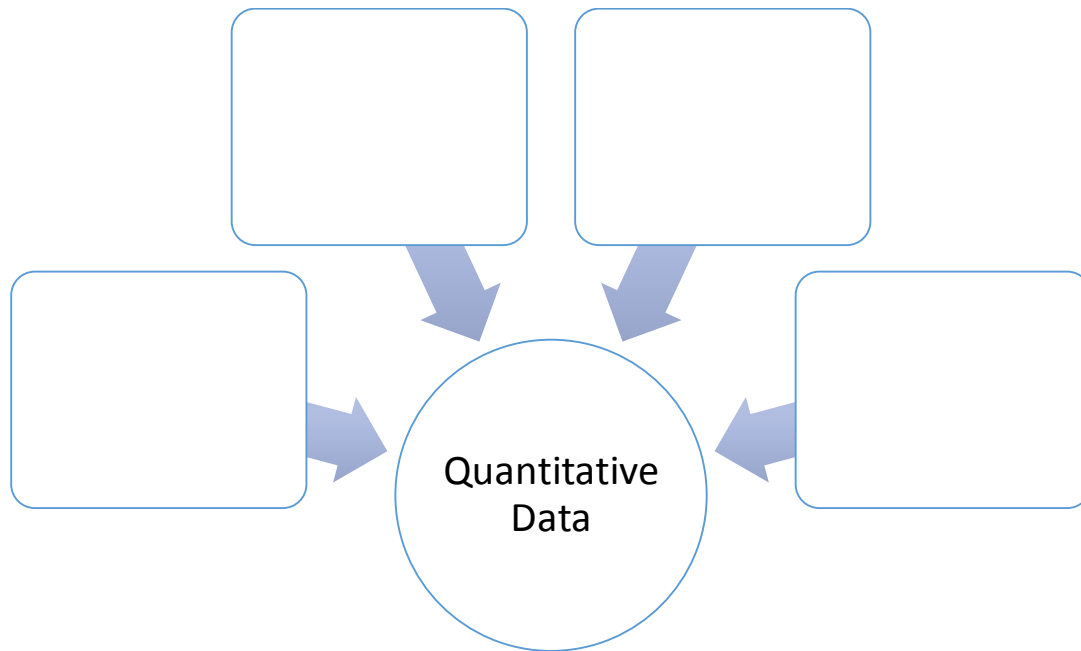


What's More

Answer the activities that follow to practice your knowledge and skill about the topic about quantitative data.

Activity 1

Provide words or phrases that will define quantitative data.



Activity 2

Using the table below, compare and contrast each pair of expression.

Pair of Expression	Comparison	Contrast
Primary data vs. Secondary data		
Overt observation vs. Covert observation		
Questionnaire vs. Interview		
Pre-test vs. Post-Test		
Content analysis vs. Survey Research		
Structured data vs. Unstructured data		
Observation vs. Experiment		



Activity 3

Answer each question concisely. Use the lines provided for your answer.

1. Explain briefly how observation method of data collection can be utilized?

2. Your research is about the importance of employment issues in political campaigns in the Philippines during election. Your intention is to analyze how the candidate gave importance on the issue of employment in his or her campaign speeches. What data collection method is most appropriate to use? Why?

3. Why do you think experimental data collection method is the most rigorous?

4. Describe the two data collection instruments under survey method of data collection.

5. The survey questionnaire is the most popular data collection method due to its many advantages compared to the other methods. As a researcher, what are your thoughts on the following advantages of using a survey questionnaire:
 - a) Easy to construct:

 - b) Distribution is easy and inexpensive:

 - c) Responses are easy to tabulate:





What I Have Learned

In this module, you have studied about data collection procedure. Express what you have learned by answering the questions below.

1. What are the two categories of data?

2. What is quantitative data?

3. What are the common types of quantitative data collection?

4. Why is it important to correctly plan the data collection procedures in doing a research? Give at least 3 reasons.



What I Can Do

Apply what you have learned in this module by doing this activity.

Examine your research and answer the following questions.

1. What is the title of your research?

2. What is the focus of your research (Independent/Dependent Variables)?



3. What are your study's research questions?

Research Question 1

Research Question 2

4. What is the research design of your study?

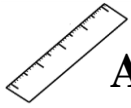
5. Who are the participants of your study?

6. What survey instrument will be used?

Rubric for marking:

	Exceptional (10 pts.)	Good (6 pts.)	Fair (3 pts.)
Data Collection Procedure	The study was described in sufficient detail. Data collection procedures are all described appropriately with the research topic.	The study was described in sufficient detail with one or two details lacking. Data collection procedures are all described appropriately with the research topic.	Some details are missing, and the methods of data collection procedure are not appropriate with the research topic.





Assessment

Answer the following questions. Select your answers from the options provided. Encircle the letter of your choice.

1. Which data collection instrument is self-completed by participants?
A. Content analysis
B. Observation
C. Questionnaire
D. Survey
2. What data collection method requires the scientific method of testing the cause and effect of the variables?
A. Experiment
B. Interview
C. Observation
D. Survey
3. Which of the following words does NOT belong to the group in terms of the elements of subject?
A. Hypothesis
B. Post-test
C. Pre-test
D. Treatment
4. What section of a research can the researchers discuss the parts and content of the survey questionnaire?
A. Data analysis
B. Data gathering procedure
C. Research design
D. Research instrument
5. Which of the following refers to the pieces of measurable information?
A. Content Analysis
B. Level of measurement
C. Qualitative data
D. Quantitative data



Additional Activities

Enumerate the Four Levels of Measurement

- 1.
- 2.
- 3.
- 4.



Post-test
Practical Research 2
Quarter 2- Module 5 Data Collection Procedure

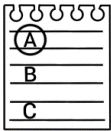
Write the letter of the correct answer on the space before the number.

1. Using the survey method of quantitative research, a researcher can use two data gathering instruments: questionnaire and ____?
A. E-mail
B. Interview
C. Mail survey
D. Phone survey
2. Which of the following refers to a tool used to collect, measure, and analyze data related to your research study?
A. Research instrument
B. Research problem
C. Research questions
D. Research survey
3. Which of the following does NOT belong to the group?
A. Books
B. Internet articles
C. News paper
D. Observations
4. What sub-section of a research discusses the sampling procedures?
A. Data gathering procedure
B. Population and sample
C. Research design
D. Research instrument
5. Which of the following words refers to a piece of information?
A. Data
B. Datum
C. Gossip
D. Knowledge
6. What sub-section of a research can a researcher narrate the data collection of the study?
A. Data analysis
B. Data gathering procedure
C. Research design
D. Research instrument
7. Which of the following is described as unpublished data?
A. Articles
B. Books
C. Primary data
D. Secondary data
8. What word refers to a set of written questions with a choice of answers?
A. Questionnaire
B. Research
C. Survey
D. Test
9. Which of the following does NOT explain survey?
A. Administered electronically
B. Administered face-to-face
C. Gathering data from recorded information
D. Predetermined set of questions
10. Which data collection instrument is self-completed by participants?
A. Content analysis
B. Observation
C. Questionnaire
D. Survey



11. Which of the following words does NOT belong to the group in terms of the elements of subject?
- A. Hypothesis
 - B. Post-test
 - C. Pre-test
 - D. Treatment
12. What section of a research can the researchers discuss the parts and content of the survey questionnaire?
- A. Data analysis
 - B. Data gathering procedure
 - C. Research design
 - D. Research instrument
13. In quantitative research, a researcher must collect pieces of information that is _____ and will give answers to research questions.
- A. Important
 - B. Measureable
 - C. Significant
 - D. Vital
14. Given this type of question “How would you rate your teacher’s performance?” What category of scales of measurement is most appropriate?
- A. Interval scale
 - B. Nominal scale
 - C. Ordinal scale
 - D. Ratio scale
15. Which of the following refers to the pieces of measurable information?
- A. Content Analysis
 - B. Level of measurement
 - C. Qualitative data
 - D. Quantitative data





Answer Key

PRACTICAL RESEARCH 2 Second Quarter- Module 5 Data Collection Procedure

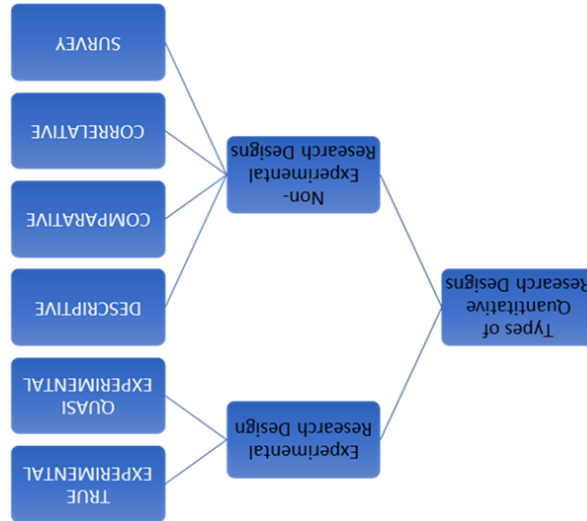
C. (Answers may vary)

B. CUSTOMER SATISFACTION

A. (Answers may vary)

What's New - Activity

Additional Activities
1. NOMINAL
2. ORDINAL
3. INTERVAL
4. RATIO



What's In

What I Know

1. B
2. C
3. A
4. B
5. C

What's More- Activity 1

1. Measurable information
 2. Numerical in nature
 3. Related to metrical system
 4. Mathematically computed
- (Answers may vary)

Activity 2

(Answers may vary)

Activity 3

(Answers may vary)

What I Can Do

(Answers may vary)

Assessment

1. C
2. A
3. A
4. D
5. D



References

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