LEARNING AS ONE NATION

Expanded Project

Stat & Prob_15

SHS LEARNING ACTIVITY

Name: _____ **Score/Mark:** _____

Grade and Section: _____ **Date:** _____

Strand: ☐ STEM ☐ ABM ☐ HUMSS ☐ ICT (*TVL Track*)

Subject: *Statistics & Probability*

Type of Activity: ☐ Concept Notes ☐ Skills: Exercise/Drill ☐ Illustration ☐ Performance Task ☐ Essay/Report ☐ Others: _____

Activity Title: Random Sampling

Learning Target: To describe and illustrate random sampling techniques.

References: *(Author, Title, Pages)*
1) Caras, M. et al. "Statistics and Probability: A Simplified Approach", pp. 195-202;
2) L.A. Sajulga and L.E.B.Bolaer, CVIF Learning Activities

Random sampling is one of the different probability sampling techniques used in the collection of data. It is also one of the most widely used techniques because of its simplicity in the selection procedure.

1. **Simple random sampling -** a method wherein every distinct sample from a population of size N has an equal chance of being selected. In the process of sample selection, each of the remaining elements must have an equal chance of selection at any unit of the n draws.

Two types of simple random sampling:

- With replacement – the element chosen is replaced every time another selection is made.
- Without replacement -it does not allow the repetition of sample units in random sampling.

Steps of the Sample Selection Procedure:

Step 1: Create a list of the population from 1 to N.

Step 2: Randomly take n number of sampling units by either the lottery method or using a table of random numbers.

Step 3: The selected numbers chosen randomly will then become part of your sample.

2. **Stratified random sampling** – a heterogeneous population of N units is divided into homogeneous nonoverlapping groups called strata. For each stratum, a sample is drawn using simple random sampling.

Exercises:

1. Differentiate between a probability sampling and non-probability sampling.
2. Cite at least one disadvantage of simple random sampling if the population of interest is as big and as widely spread as the whole population in the Philippines.
3. Suppose you wish to conduct a survey on the average productivity (successful projects vis-á-vis funds used) of government officials in Bohol, what type of random sampling technique are you going to use? Justify.