Types of Sampling

Probability Sampling: it is selecting of samples that based on random method

Non Probability Sampling: is based on a researcher's judgment and there is possibility of bias in sample selection. Not based on random method

1-Random sampling is used to increase the probability of the sample selected. By deploying this technique, each member of a population stands a chance to be selected.

2-Stratified Sampling: a researcher may want to select individuals with certain characteristics to be included in the sample to be studied. For example, it is much easier to stratify the population on the basis of gender rather than age or income group.

3-Cluster Sampling: In cluster sampling, the unit of sampling is not referring to an individual entity but rather a group of entities.

4-Systematic sampling also known as mixed sampling category since it has both random and non-random sampling designs. A researcher has to begin by having a list names of members in the population, in random approach. of entities.

1- Quota sampling is the researcher simply can of reaching to the sample population. Similar to stratified sampling, a researcher needs to identify the subgroups and their proportions as they are represented in the population. Then, the researcher will select subjects based on his/ her judgment to fill each

2- Purposive Sampling:. This sampling method is normally used if the sample population is small and when the main objective is to choose cases that are useful to the research topic selected (based on research aims). One of the disadvantages of this technique is that the sample may have characteristics different from population characteristics.

Statistic Science

- Selection of Data
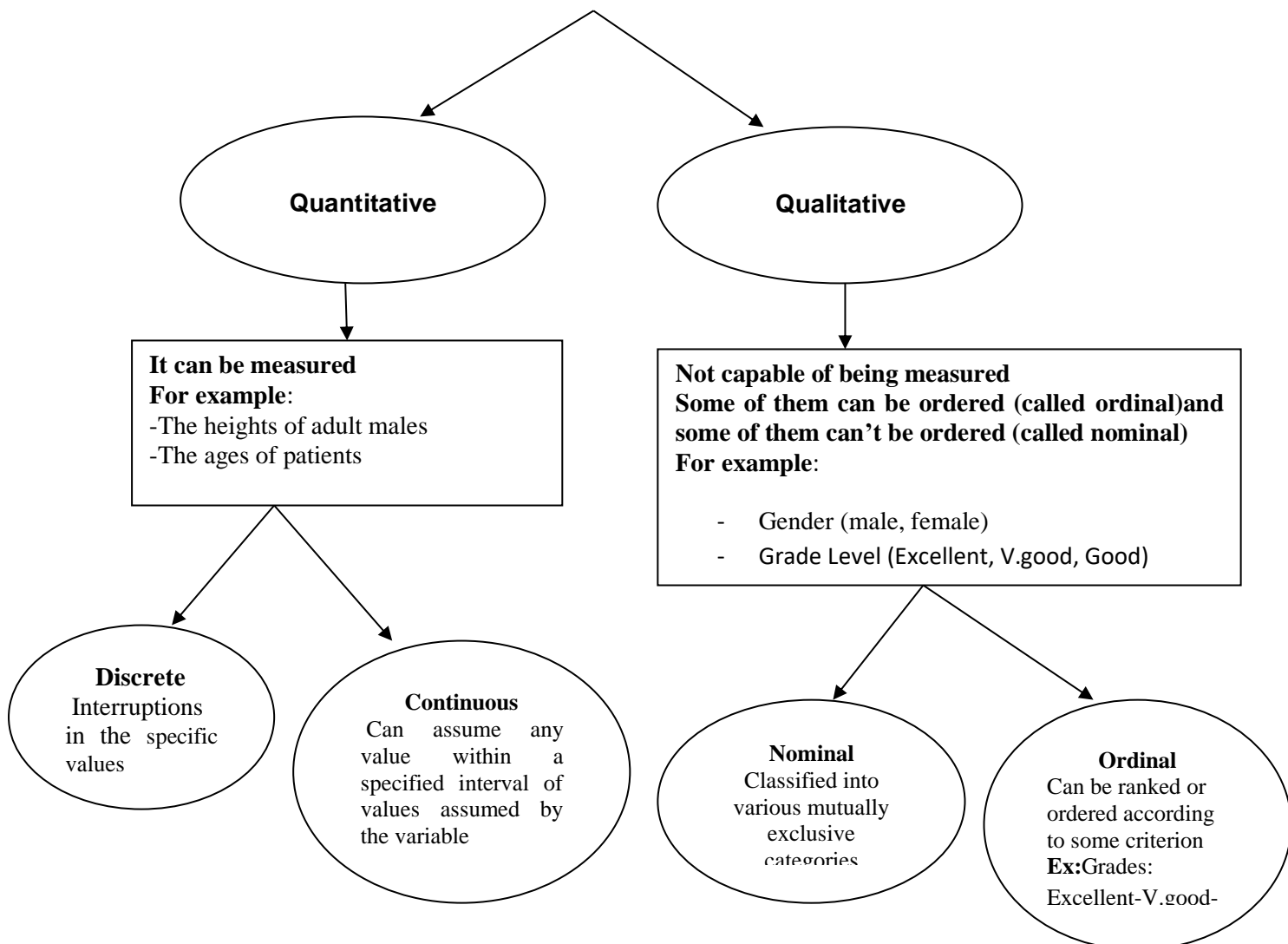- Displaying of data
- Data Analysis
- explanation of Data

Population: Media of study. Can be Limited and Unlimited

Sample: is a specific part of statistical population that represented the population correctly.

Sampling is a process of selecting samples from a group or population to become the foundation for estimating the outcome of the population and to detect the unknown piece of information.

Sampling techniques often depend on research objectives of a research work.

Types of variables

Quantitative

It can be measured
For example:
-The heights of adult males
-The ages of patients

Discrete
Interruptions in the specific values

Continuous
Can assume any value within a specified interval of values assumed by the variable

Qualitative

Not capable of being measured
Some of them can be ordered (called ordinal)and some of them can't be ordered (called nominal)
For example:

-   Gender (male, female)
-   Grade Level (Excellent, V.good, Good)

Nominal
Classified into various mutually exclusive categories

Ordinal
Can be ranked or ordered according to some criterion
Ex: Grades:
Excellent-V.good-

Classification is the process of arranging data into sequences and groups according to separating them into different but related parts.

Important types of classification

a) **Geographical** (i.e. on the basis of area or region wise)

b) **Chronological** (On the basis of Temporal / Historical, i.e. with respect to time)

c) **Qualitative** (on the basis of character / attributes)

d) **Quantitative** (on the basis of magnitude)

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a) Geographical Classification

In geographical classification, the classification is based on the geographical regions. For example:

Ex: Sales of company (In Million Rupees):

Region	Sales
North	285
South	300
East	185
West	235

b) Chronological Classification

If the statistical data are classified according to the time of its occurrence, the type of classification is called chronological classification.

Months	Sales (Rs.) in Lakhs
January	22
February	26
March	32
April	25
May	27

c) Qualitative Classification

In qualitative classifications, the data are classified according to the presence or absence of attributes in given units.

Ex: **a)** Population in to Male / Female

    b) Population into Educated / Uneducated

d) Quantitative Classification: In Quantitative classification, the classification is based on quantitative measurements.

Ex: For a 50 marks test, marks obtained by students classified as:

Marks	No. of Student
0 – 10	5
10 – 20	7
20 – 30	10
30 – 40	25