Statistics involves two parts:

1. Inferential: We always try to find relation between samples and population. Based on relation we make conclusion. Population is the one on which experiment is performed. Sample is subset of population.

2. Descriptive: Can be described and summarized using numbers and graphs. We always think of central tendency of data. Central tendency includes mean, median, mode. Some pattern is displayed in the graph.

Descriptive involves categorical and numerical data in dataset.

Categorical defines group of data. Data which can be categorized.

Numerical can be present in terms of numbers.

Categorical and Numerical can be divided as:

1. Continuous: Data is continuous

2. Discrete: Data are discrete. Data is described absolutely completely.

For eg: Student scoring if said in terms of Grade then categorical, when score is termed in terms of marks then numerical data.

Level of measurements:

Able to divide data in two parts :

1. Qualitative: Quality of data is involved. Can be divided as

1. Nominal: Values serves only as a label. For eg: Considering male as 1 and female as 0, we are just trying to give representation. Just a name there is no order

2. Ordinal: There is some kind of order

2. Quantitative: Quantity of data is involved. Can be divided as

1. Interval: Data defined in term of interval

2. Ratio: Data defined in term of ratio

Central tendency: Involves

1. Mean: Average of entire data set.

Formula:

mean = sum of all the data / total number of data

1. Median: Arrange data in ascending order

If the total number of observations (n) is an odd number, then the formula is given below:

Median=((n+1)/2)th observation

If the total number of the observations (n) is an even number, then the formula is given below:

Median=(n/2)th observation+((n/2)+1)th observation2

3. Mode:

The mode is the most frequently occurring observation or value.

Normal distribution:

Distribution is seen like Bell Shaped curve. Formula is

F(x) = { 1/[ σ \* sqrt(2π) ] } \* e-(x - μ)2/2σ2