Central Tendency and Its Types

We have learnt about collection, organisation and tabulation of the given data. It is not that we have to always study the entire data to 'make sense' of it. In fact, we can make out some important features of it by considering only certain representatives of the data. This becomes possible by using measures of **central tendency or averages**.

The commonly used measures of central tendency are

1. Arithmetic mean 2. Median 3. Mode

Arithmetic Mean

The average of a given set of numbers is called the arithmetic mean or simply the mean of the given numbers.

$$Mean = \frac{Sum\ of\ all\ Observations}{Number\ of\ observations}$$

Median

The median is the middle value of set of observations arranged in either ascending or descending order.

If n is odd, then median = $\left(\frac{n+1}{2}\right)$th observation

If n is even, then $\frac{\left(\frac{n}{2}\right)^{th} observation + \left(\frac{n}{2}+1\right)^{th} observation}{2}$

Mode

The mode is the score (observation) that appears most often in a given set of observations. Hence, it is that value of the observation which occurs most frequently.