

Statistical Data

Observation and Variable: in statistics an observation often means any sort of numerically recording of information, whether it is a physical measurement such as height or weight a classification such as heads or tails, or an answer to a question such as yes or no.

Variable: a characteristic that varies with an individual or an object is called a variable e.g age is a variable as it varies from person to person a variable can assume a number of values .the given set of all possible values from which the variable takes on a value , is called its domain . If for a given problem, the domain of a variable contains only one value, then variable is referred to as a constant.

Variable may be classified into qualitative and quantitative according to the form of the characteristics of interest. A variable is called a quantitative variable when a characteristic can be expressed numerically such as education, sex, eye-color ,quantity ,intelligence, pretty, satisfaction, etc, the variable is referred to as a quantitative variable .a quantitative variable is also called an attribute . An individual or an object with such a characteristic can be counted or enumerated after having been assigned to one of the several mutually exclusive classes or categories.

Discrete and Continuous Variable: a quantitative variable may be classified as discrete or continuous **discrete variable** is one that can take only a discrete set of integers or whole numbers. That is the values are taken by jumps or breaks. A discrete set of integers or whole numbers. That is the values are the numbers of rooms in a house. The numbers of deaths in an accident, the income of an individual. etc,

A variable called a **continuous variable** if it can vary on any-fractional or integral-within a given interval, i.e domain is an interval with all possible values without Gaps. A continuous variable represents measurement data such as the age of a person, the height of a plant, the weight of a commodity, the temperature at a place, etc.