

Types of variables :

Variables may be either qualitative or quantitative.

Qualitative variable :

Qualitative variable is one for which numerical measurement is not possible.

Example : Hair color (brown, black, white), religion (Muslim, Hindu, Christian etc.)

Quantitative variable :

Quantitative variable is one for which numerical measurement is possible.

Example : Height, weight, family size, number of accidents etc.

These variables in a study may be of different nature and they may represent some attributes, characteristics or key factors of interest. These variables can be measured under four levels or scales of measurement.

① Nominal scale:

The measurement scale, in which numbers are assigned to the categories or variable values for identification only is called a nominal scale.

② Ordinal scale:

The measurement scale, in which numbers are assigned to the categories or variable values for identification as well as ranking, is called an ordinal scale.

③ Interval scale:

The measurement scale, in which numbers are assigned to the variable values in such a way that the level of measurement is broken down on a scale of equal units and the zero value on the scale is not absolutely zero, is called an interval scale.

④ Ratio scale:

The measurement scale, in which numbers are assigned to the variable values in such a way that the level of measurement is broken down on a scale.

of equal units and the zero value on the scale is absolutely zero, is called a ratio scale.

A comparison of the four levels of measurement:

Levels	Arithmetic	Features	Examples
Nominal	Counting	1. Categorise	Religion, Sex of subjects, eye colour
Ordinal	Counting Ranking	1. Categorise 2. Ranks	Economic Status Examination grades
Interval	Counting Ranking Addition Subtraction	1. Categorise 2. Ranks 3. Has equal units	I. Q Scores, Temperature
Ratio	Counting Ranking Addition Subtraction Multiplication Division	1. Categorise 2. Ranks 3. Has equal units 4. Has absolute zero	family size Height - weight etc.

Sources of Data :

The main sources of secondary data in our country are BBS - ICDDR-B, BRAC - NIPORT, BIRPERT and some other NGOs.