University of Essex

Online

Scale of Measurement

Before we conduct a statistical analysis, we need to measure our variables. Exactly how the measurement is carried out depends on the type of variable involved in the analysis. Different types are measured differently.

Nominal scales are names or categories of responses. Examples include Gender, favourite colour, or religion. they do not imply any ordering among the responses. Responses are merely categorised.

Ordinal scales are used when measuring a customers' satisfaction and you might ask them to specify their feelings, such as "very satisfied," "somewhat dissatisfied," "somewhat satisfied." The items in this scale are ordered, ranging from least to most satisfied.

Interval scales are numerical scales in which intervals have the same interpretation throughout. As an example, consider the Fahrenheit scale of temperature. The difference between 30 degrees and 40 degrees represents the same temperature difference as the difference between 80 degrees and 90 degrees.

Ratio scales are the most informative scale. It is an interval scale with the additional property that its zero position indicates the absence of the quantity being measured. An example of a ratio scale is the amount of money you may have in your pocket or purse right now. Money is measured on a ratio scale because it has a true zero point: if you have zero money, this implies the absence of money.