BHARATHIDASAN UNIVERSITY
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PROGRAMME: MASTER OF EDUCATION (M.Ed)

Course Title: Advanced Research Methodology & Educational Statistics

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Unit V Applied Statistics

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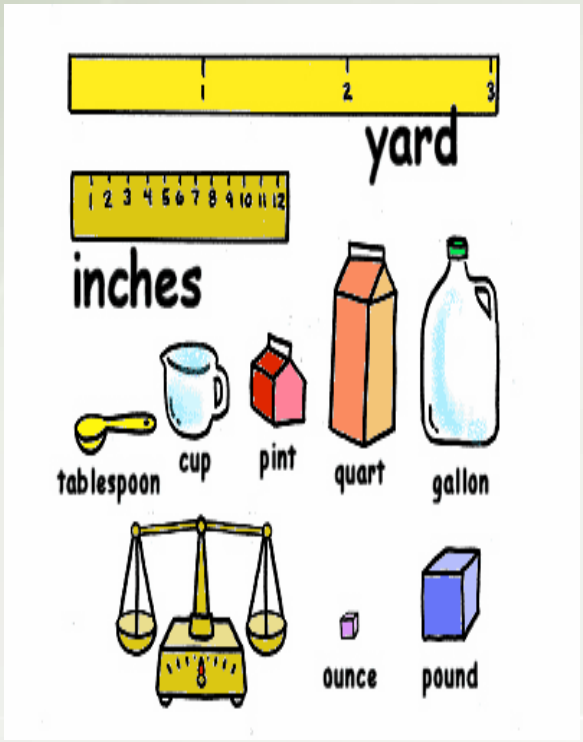
Measurement Scales

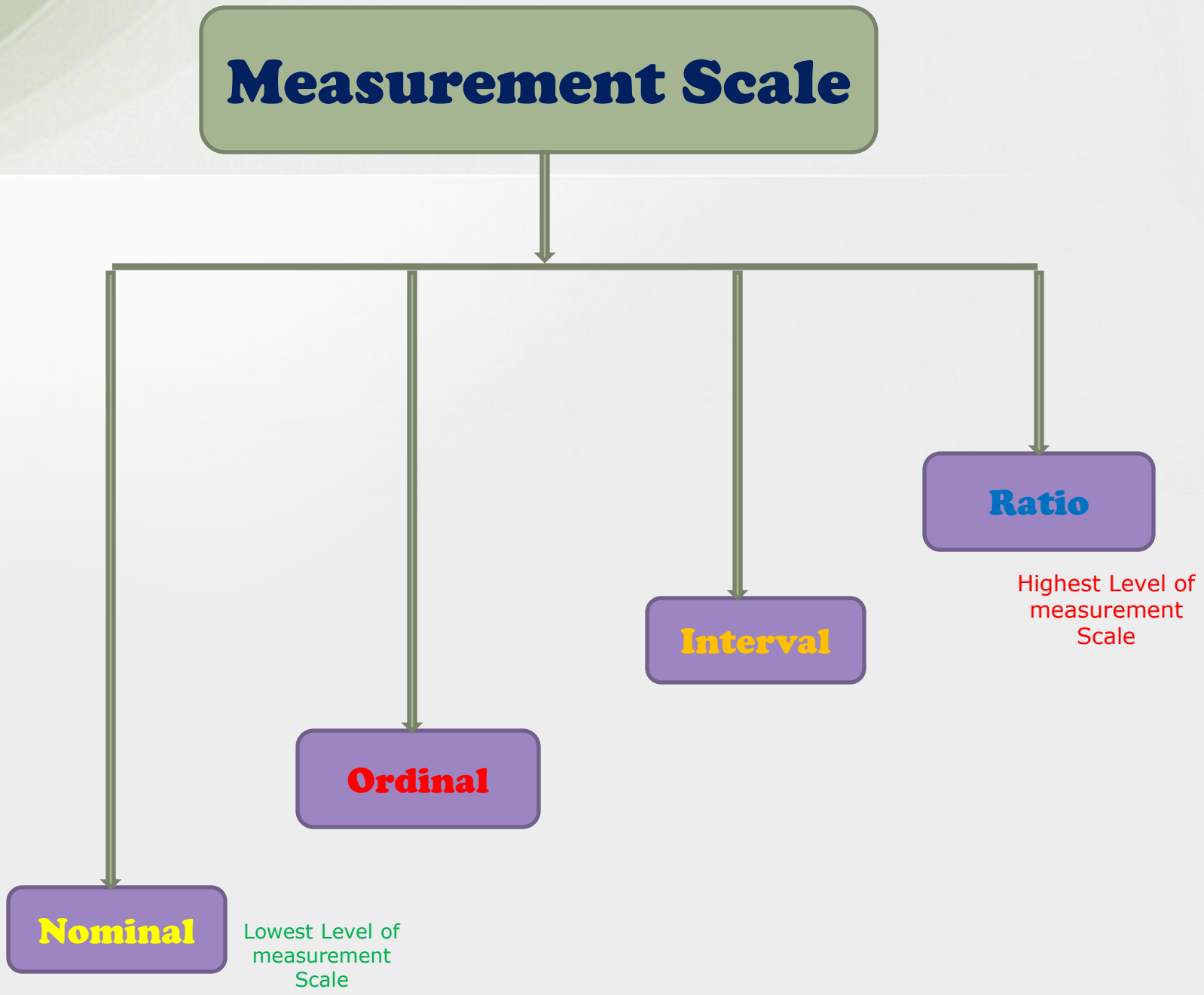


Introduction

- Daily life we use some yardstick to determine the Weight, Height and Physical objects
- Process of assigning numbers to objects or observation
- Describe some property objects
- Mostly apply to quantitative research
- It classify information and distinct characters
- In the educational setup we used classification of measurement scales are i) Nominal scale, ii) Ordinal Scale, iii) Interval Scale and iv) Ratio Scale

Definition

- Process of mapping aspects of a domain into other aspects of a range according to some rule of correspondence.
- It is a devise to measure the people viz.., behavioral, attitude and interest ect …..
- The relationship of the values that are assigned to the attributes for a variable
- Process of Scientific investigation of the objects


Measurement Scale
Ratio
Highest Level of measurement Scale
Interval
Ordinal
Nominal
Lowest Level of measurement Scale

Nominal Scale

- ✓ Word nominal is derived from Latin word, it means Name or Nomen
- ✓ Based on the purpose of identification to assign a value of an object
- ✓ Elementary or lower level of measurement
- ✓ Measure to quality more than quantity

Example

- 0 and 1, used to computer
- Sex
- Religious
- Time of day
- Uses of Colures
- Yes/No

Ordinal Scale

- ✓ Ordinal scales is rank-order observations
- ✓ Attributes where the order but the difference do not taken we are think in ‘order’.
- ✓ to measure a non-numeric concepts like interest, happiness, comfort
- ✓ Dichotomous data

Example

- Healthy Vs Sick
- Innocent Vs Guilty
- True Vs False

Interval Scale

- ✓ Interval scale refers to interval itself, means equal space between the attributes
- ✓ Difference between the space are same in all variables
- ✓ It is a numeric scale
- ✓ Not only the order, but also the exact differences between the values
- ✓ Does not clear idea about zero point
- ✓ The values of space constant and measurable

Example

- Temperature
- Mathematical Degree
- Time 24*7

Ratio Scale

- Highest level of measurement scale, most informative scale then other scale
- Equal intervals are made and also have absolute zero point
- Attributes can be meaningfully added, subtracted, multiplied and divided
- To calculate central tendency mean, median and mode
- To calculate measure of dispersion as Standard Deviation and Coefficient variation

Example

- Income
- Experience
- CGPA
- Number of siblings
- Distance
- Volume
- Weight
- Height

Thank you