

Class – X
Lesson Plan

TOPIC - STATISTICS

Brief description: - This lesson will introduce the students to the various methods used to calculate the mean and mode of grouped data. They will also learn to find the median of grouped and ungrouped data. They will learn to graphically represent cumulative frequency curves.

UN Sustainable Goals to be achieved (if any): Quality Education

Objectives: (According to Bloom's level)

I - Specific Objectives

Students will be able to:

1. Calculate the mean, median and mode of ungrouped data (k)
2. Calculate the mean of the grouped data using direct method, assumed mean method and step deviation method. (A)
3. Calculate the mode of grouped data. (A)
4. Find the median of ungrouped data with odd number of observation. (U)
5. Find the median of ungrouped data with even number of observation. (U)
6. Find the median of grouped data. (A)
7. Represent cumulative frequency distribution as an OGIVE. (An)
8. Find median with the help of Ogive (U)

II - Behavioral objective:-

Teacher may give some scenarios to the students and ask them which measure of central tendency (mean or mode) should be used in each scenario like:

- 1) Calculate the average performance of your class on the basis of CGPA scored last year (application of mode)
- 2) Calculate the range in which most of the students CGPA lie or CGPA which is scored by maximum number of the students (application of mode)

Skills:

Analysis
Reasoning
Application
Drawing

Expected learning outcome: - Students would be able to,

1. Calculate the mean, median and mode of ungrouped data
2. Calculate the mean of the grouped data using direct method, assumed mean method and step deviation method.
3. Calculate the mode of grouped data.
4. Find the median of ungrouped data with odd number of observation.
5. Find the median of ungrouped data with even number of observation.
6. Find the median of grouped data.
7. Represent cumulative frequency distribution as an OGIVE
8. Find median with the help of Ogive

Assessment: (Based on Solo Taxonomy)

As a classroom activity- Divide the class into three groups and ask them to collect the data regarding.

1. The heights and weight of all students in the class and calculate all three measures of central tendency with above collected data.

Such activity will help the students to develop their data collection and calculation skill.

- Collection of data and concept of mean, mode and median of ungrouped data. (**Prestructural**)
- Measures of central tendencies of grouped data. (**Unistructural**)
- Different short cut methods to calculate mean. (**Multistructural**)
- With the help of measures of central tendencies students will be able to interpret the data. (**Relational**)
- Able to calculate mean, mode and median for grouped and ungrouped data base of daily life situation. (**Extended Abstract**)