

Statistics

Lecture 10: | Dotplot

Prof. Dr. Mostafa Elhosseini

<https://youtube.com/drmelhosseini>

| Dotplot

- A **dotplot** is an attractive summary of numerical data when the sample size is **not too large** and when the sample **contains** some **repeated values**.

| Dotplot

- **For each value** in the sample a **vertical column of dots is drawn**, with the **number of dots** in the column equal to the **number of times the value appears** in the sample.
- The **dotplot** gives a **good indication** of where the **sample values** are **concentrated** and **where the gaps** are

| Dotplot

- As with a stem-and-leaf display, a **dotplot** gives information about **location, spread, extremes, and gaps**

| How to plot?

Ages of students in a class

5, 7, 5, 9, 7, 7, 6, 9, 9, 9, 10, 12, 12, 7

- For each age, how many students in the class are of that age

| How to plot?

Ages of students in a class

5, 7, 5, 9, 7, 7, 6, 9, 9, 9, 10, 12, 12, 7

Age	Frequency
5	2
6	1
7	4
9	4
10	1
12	2

| Why not Dotplot?

- If the data set for example had consisted of **50 or 100 temperature observations**, each recorded to a **tenth of a degree**, it would have been much more **cumbersome to construct a dotplot**.
- Our next **technique** is well suited to such situations