

- Methods of display data :

There are two methods to display the tables :

- 1.display of data table: to display data in the form of a frequency table according to the type of data and the number of variables.
- 2.Display of data graphically.

The following example shows how to grouped data in form of a frequency table :

Table 1: Samples data of dates were produced of 40 farms .

Salvation	Ascetical	Salvation	Barhi	Salvation	Barhi	Salvation	Drunken
Barhi	Khstaoa	Barhi	Salvation	Ascetical	Barhi	Drunken	Barhi
Salvation	Ascetical	Barhi	Barhi	Salvation	Drunken	Barhi	Ascetical
Ascetical	Khstaoa	Ascetical	khstaoa	Drunken	Barhi	Salvation	Barhi
Salvation	Ascetical	Barhi	Drunken	Khstaoa	Ascetical	Drunken	Salvation

Find the following :

- 1.find the variable type? What is the criterion used in the measured data ?
- 2.display of data in the form of a frequency table ?
- 3.formation of relative of frequency distribution ?
- 4.Commentiong on results ?

Solution :

1.The variable type: the type of dates (drunken, salvation, Barhi, ascetical and Khstaoa) .

2.Display data in frequency table.

Display data in frequency table .

Kind of dates	Statistical signs	Frequency (No. of farms)
1.Drunken .	1111	5
2.salvation .	1111 1111	10
3.Barhi .	1111 1111 111	13
4.Adcetical .	1111 111	8
5.Khstaoa	1111	4
Sum		40

3.formation of relative of frequency distribution ?

Frequency distribution of the sample of 40 farms according to the type of dates were produced .

Kind of dates	Frequency (No. of farms)	Relative of distribution recurring
1.Drunken .	5	$(5/40) = 0.125$.
2.salvation .	10	$(10/40) = 0.25$.
3.Barhi .	13	$(13/40) = 0.325$
4.Adcetical .	8	$(8/40) = 0.20$.
5.Khstaoa	4	$(4/40) = 0.10$.
Sum	40	$(40/40) = 1.00$

The relative frequency = (category replicate / total of replicates) \times 100.

4.Commenting on results : we notes from the results of the table above that the farms were produce brahi date is the upper percentage (32.50%), which indicates that this kind of dates is the most widespread and common for other species while we find that Kstaoa is the lowest rate (10%) from there farms .

- Display of quantitative variable data in form of simple frequency table .

It consists of two columns, the first is progressive groups of observations of that variable and the second includes duplicates or vocabulary.

Example (2): degrees data for 70 students in the final test in the subject of biostatistics .

56	65	70	65	55	60	66	75	75	56
60	72	61	57	61	71	67	62	71	66
68	70	57	68	72	69	57	71	69	75
72	62	67	73	58	63	66	73	63	65
58	73	74	76	74	80	81	60	74	58
76	82	77	83	77	85	91	78	94	72
79	64	57	79	55	87	64	88	78	62

Find the following :

1. formation of frequency distribution of students' marks .
2. relative frequency distribution .
- 3.find the percentage of students who score between 70 to less than 80 .
- 4.find the percentage of students who score less than 70 marks .
- 5.find percentage of students who score 80 or more .

Solution :

1.find frequency distribution of students' grades.

-The student's degree in a quantitative variable test and grouped data in the frequency table as follows.

Range (R) = upper limit - minimum limit = maximum – minimum .

$$R = 94 - 55 = 39 .$$

. Number of categories: many researchers were indicates the number of categories should ranges from 5 to 15, assuming that the number of categories is (8) .

. length of category = equal term / number of categories.

$$\text{Length} = \text{range} / \text{class} = R / C = 39/8 = 5.$$

-The minimum for the first category =, the lowest reading or equal to 55 marks .

-The upper limit for the first category = minimum first class + the length category = $55 + 5 = 60$.

-The minimum for second category = upper limit of the first category = 60.

-The upper limit for the second category = minimum of second class + the length category = $60 + 5 = 65$.

Some follow groups are :

Category I: 55 – 60 .

Category II: 60 – 65 .

Category III: 65-70 .

Category IV: 70 – 75 .

Category V: 75 – 80 .

Category VI: 80 – 85 .

Category VII: 85 – 90 .

Category VIII : 90 – 95 .

1.Display data in frequency table .

marks		Statistical signs	No. of students (replicates)
Categories	Category		
55 - 60	55	1111 1111	10
60 - 65	60	1111 1111 11	12
65 - 70	65	1111 1111 111	13
70 - 75	70	1111 1111 1111 1	16
75 - 80	75	1111 1111	10
80 - 85	80	1111	4
85 - 90	85	111	3
90 - 95	90 - 95	11	2
Sum			70

2.Formation of frequency table .

Frequency distribution of the 70 students in biostatistics test .

Categories	No. of students (replicates) (f)	Relative of distribution recurring
55 - 60	10	$(10/70) = 0.143$.
60 - 65	12	$(12/70) = 0.171$.
65 - 70	13	$(13/70) = 0.186$.
70 - 75	16	$(16/70) = 0.229$.
75 - 80	10	$(10/70) = 0.143$.
80 - 85	4	$(4/70) = 0.057$.
85 - 90	3	$(3/70) = 0.043$
90 - 95	2	$(2/70) = 0.028$
sum	70	$(70/70) = 1.00$

3.find percentage of students who score between 70 to less than 80 .

The proportion of students who score between 70 to less than 80 = total of relative frequency to the fourth and fifth categories .

The proportion of students who score between 70 to less than 80 = $0.229 + 0.143 = 0.372$.
37.2% of students were obtained marks between 70-80 .

4. find percentage of students who score less than 70 marks .

The proportion of students who score less than 70 marks = sum of the relative frequencies of the first , second and third categories .

The proportion of students who score less than 70 marks = $0.143 + 0.171 + 0.186 = 0.50$.

50% of students were obtained marks less 70 .

5.find percentage of students who score 80 or more.The proportion of students who score 80 or more = sum of the relative frequencies sixth, seventh and eighth classes.

The proportion of students who score 80 or more = $0.057 + 0.043 + 0.028 = 0.128$.

12.80% of students were obtained 80 marks or more .