

Lecture 2

PRESENTATION OF DATA

1. Mathematical presentation (measures of central tendency and measures of dispersion).
2. Tabular presentation.
3. Graphical presentation.
4. Pictorial presentation (Map chart).

***TABULAR PRESENTATION**

Presentation of data in tables make them into a compact, concise and readily comprehensible form, found two types:

A- Simple Table

including one variable (quantitative or qualitative) and the corresponding frequency.

B- Cross tabulation

is a tabular method for simultaneously summarizing the data for two categorical variables.

***Characters of Table**

-Simple.

-Understandable and self explanatory (all symbols should be explained in details in a foot note, each row or column should be labeled clearly, units of the data should be clearly mentioned, the title should be clear, precise, and should answer the questions, what? where? and when? and totals should be shown.

-The title should be separated from the body of the table by lines or spaces.

-Avoid too much ruling.

-If the data are not original, their source should be mentioned

***Parts of a Statistical Table**

Figure 7.1 : Different Parts of a Statistical Table

TABLE NUMBER TITLE			Head Note
Stub	Caption		Total
	Caption Subhead	Caption Subhead	
Stub-Entries	Field		
Total			

Footnotes :

Source :

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GRAPHICAL AND PICTORIAL PRESENTATION

The use of diagrams or pictures to describe the distribution or characteristics of one or more sets of data. provide a better visual presentation of characteristics of data than tabular presentation.

***Characters of Graphical**

- A- Vertical and horizontal scales should be clearly labeled and units identified.
- B- simple as possible – avoid too many bars or lines – two or three is appropriate more than four is probably too many.
- C-Graphs are designed to provide a “snapshot” of the results – use tables for details.
- D-Avoid presentation of numbers in the body of a graph.

Presentation of data includes Quantitative data and Qualitative Data.

1- Qualitative data of distribution:

Frequency: It determines the number of observations falling into each category.

Relative frequency: It determines the proportion of observation in the particular class relative to the total observations.

A relative frequency : distribution is a tabular summary of a set of data showing the relative frequency for each class.

The percent frequency : of a class is the relative frequency multiplied by 100.

Examples : A sample of 10 students were examined by certain teacher and the results of examination was as below:

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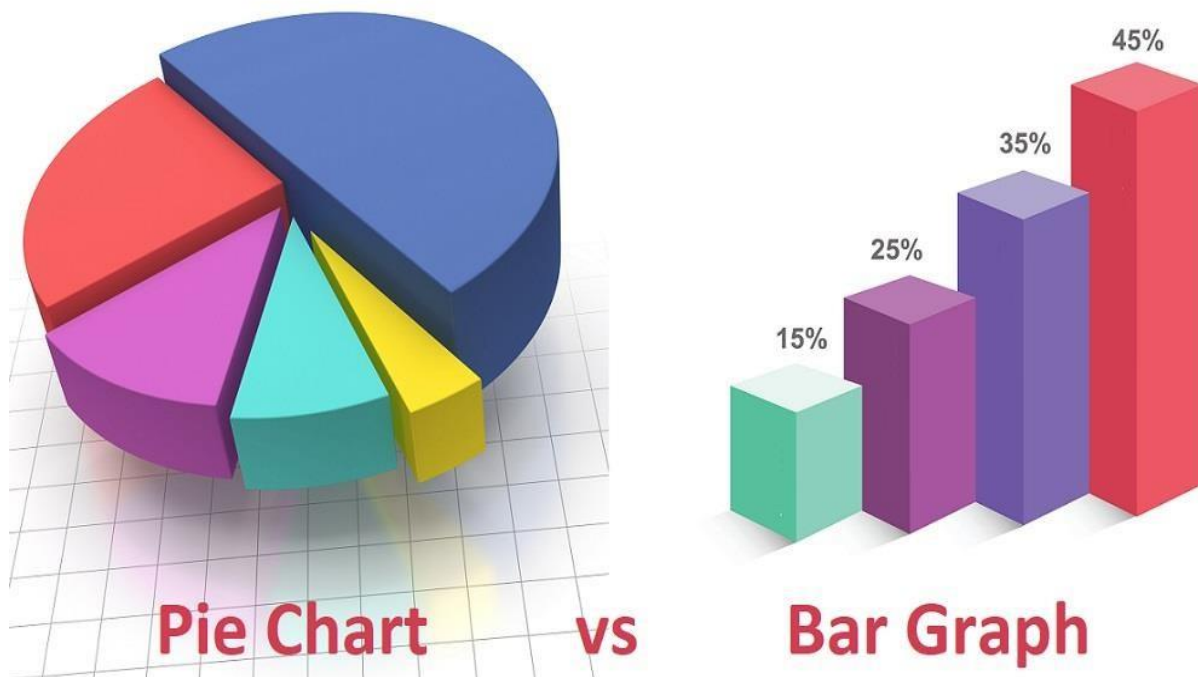
1. good	2. very good	3. good
4. excellent	5. Weak	6. very good
7. good	8. Weak	9. excellent
10. Weak		

Results	Frequency
Weak	3
good	3
Very good	2
excellent	2
Total	10

Results	Relative Frequency	PERCENT Frequency
Weak	0.3	30%
good	0.3	30%
Very good	0.2	20%
excellent	0.2	20%
Total	1	100%

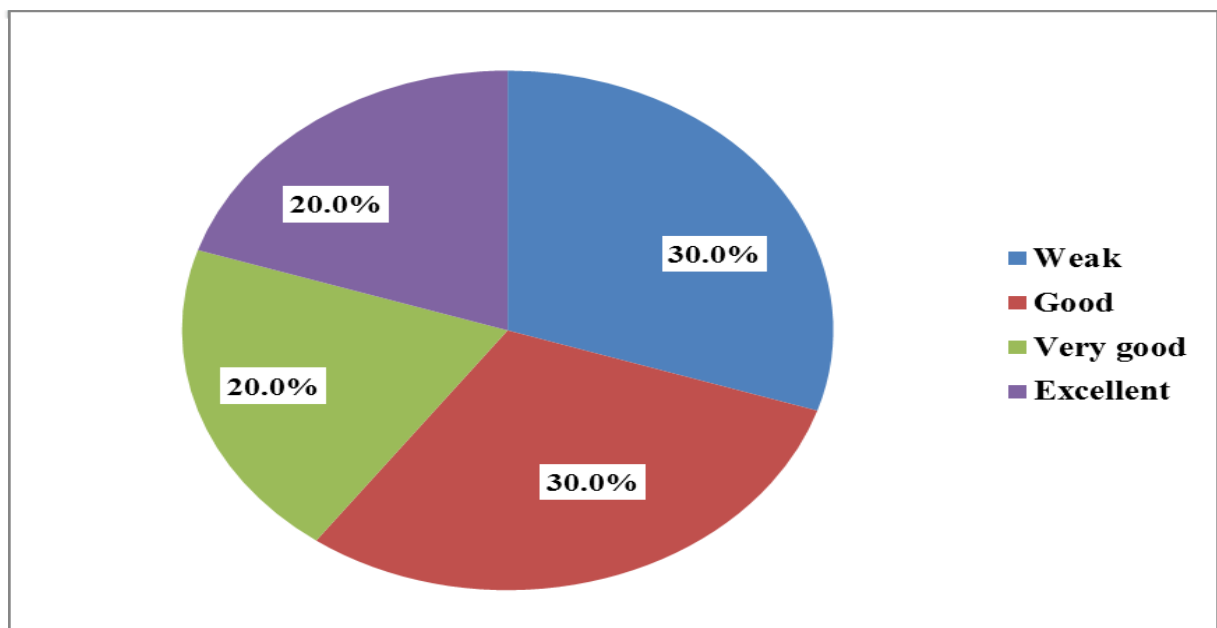
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Graphical presentation



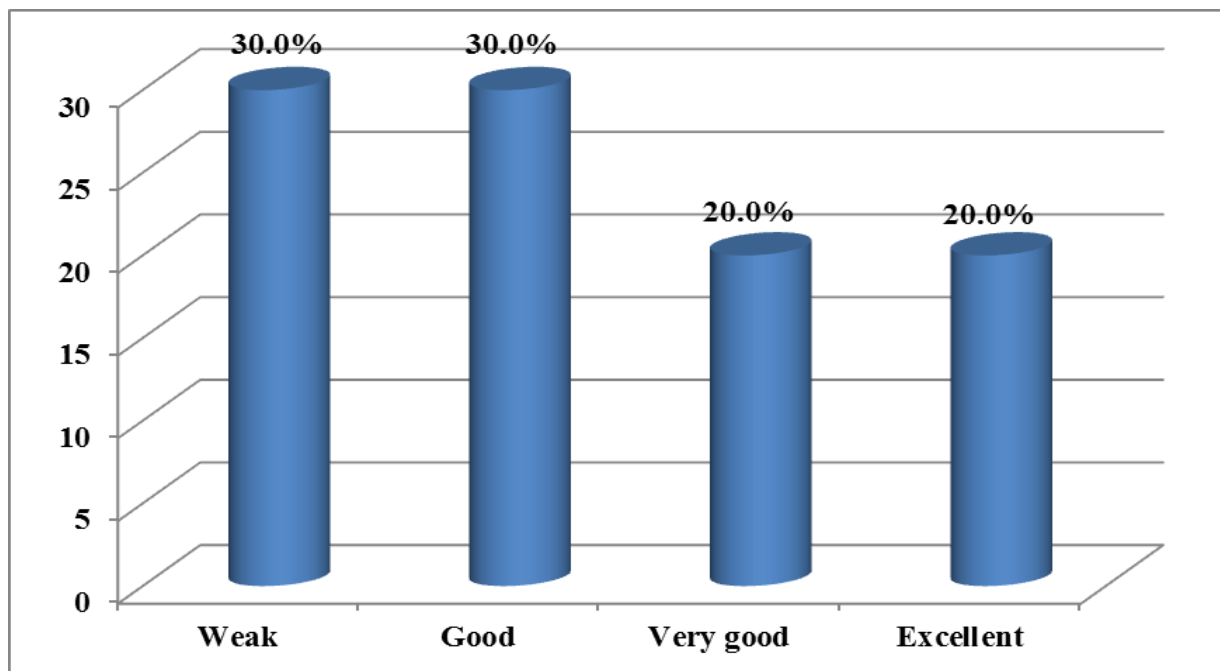
-The pie chart is a commonly used graphical device for presenting relative frequency distributions for qualitative data. First draw a circle; then use the relative frequencies to subdivide the circle into sectors that correspond to the relative frequency for each class.

Since there are 360 degrees in a circle, a class with a relative frequency of 0.25 would consume $0.25(360) = 90$ degrees of the circle.



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- A bar graph is a graphical device for depicting qualitative data. On the horizontal axis we specify the labels that are used for each of the classes. A frequency, relative frequency, or percent frequency scale can be used for the vertical axis.



CROSS-TABULATIONS

is a tabular method for simultaneously summarizing the data for two categorical variables.

Table: Distribution of case and control groups by gender

Gender	Group		Total
	Case	Control	
Male	30	10	40
Female	20	40	60
Total	50	50	100