

My favourite star



**ASSIGN
BUSTER**

Data analysis is a process used to transform, remodel and revise certain information (data) with a view to reach to a certain conclusion for a given situation or problem. Data analysis can be done by different methods as according to the needs and requirements.

For example if a school principal wants to know whether there is a relationship between students' performance on the district writing assessment and their socioeconomic levels. In other words, do students who come from lower socioeconomic backgrounds perform lower, as we are led to believe? Or are there other variables responsible for the variance in writing performance? Again, a simple correlation analysis will help describe the students' performance and help explain the relationship between the issues of performance and socioeconomic level.

Analysis does not have to involve complex statistics. Data analysis in schools involves collecting data and using that data to improve teaching and learning. Interestingly, principals and teachers have it pretty easy. In most cases, the collection of data has already been done. Schools regularly collect attendance data, transcript records, discipline referrals, quarterly or semester grades, norm- and criterion-referenced test scores, and a variety of other useful data. Rather than complex statistical formulas and tests, it is generally simple counts, averages, percents, and rates that educators are interested in.

There are many benefits of data analysis however; the most important ones are as follows: - data analysis helps in structuring the findings from different sources of data collection like survey research. It is again very helpful in breaking a macro problem into micro parts. Data analysis acts like a filter

when it comes to acquiring meaningful insights out of huge data-set. Every researcher has sort out huge pile of data that he/she has collected, before reaching to a conclusion of the research question. Mere data collection is of no use to the researcher. Data analysis proves to be crucial in this process. It provides a meaningful base to critical decisions. It helps to create a complete dissertation proposal.

One of the most important uses of data analysis is that it helps in keeping human bias away from research conclusion with the help of proper statistical treatment. With the help of data analysis a researcher can filter both qualitative and quantitative data for an assignment writing projects. Thus, it can be said that data analysis is of utmost importance for both the research and the researcher. Or to put it in another words data analysis is as important to a researcher as it is important for a doctor to diagnose the problem of the patient before giving him any treatment

The types of Measure of Central Tendency and of Measure of Dispersion. Central tendency gets at the typical score on the variable, while dispersion gets at how much variety there is in the scores. When describing the scores on a single variable, it is customary to report on both the central tendency and the dispersion. Not all measures of central tendency and not all measures of dispersion can be used to describe the values of cases on every variable. What choices you have depend on the variable's level of measurement.

Mean

The mean is what in everyday conversation is called the average. It is calculated by simply adding the values of all the valid cases together and dividing by the number of valid cases.

The mean is an interval/ratio measure of central tendency. Its calculation requires that the attributes of the variable represent a numeric scale

The mode is the attribute of a variable that occurs most often in the data set.

For ungroup data, we can find mode by finding the modal class and draw the modal class and two classes adjacent to the modal class. Two lines from the adjacent we crossed to find the intersection. The intersection value is known as the mode.

Median

The median is a measure of central tendency. It identifies the value of the middle case when the cases have been placed in order or in line from low to high. The middle of the line is as far from being extreme as you can get. 2 There are as many cases in line in front of the middle case as behind the middle case. The median is the attribute used by that middle case. When you know the value of the median, you know that at least half the cases had that value or a higher value, while at least half the cases had that value or a lower value.

Range

The distance between the minimum and the maximum is called the range. The larger the value of the range, the more dispersed the cases are on the variable; the smaller the value of the range, the less dispersed (the more concentrated) the cases are on the variable

Range = maximum value – minimum value

Interquartile range (IQR) is the distance between the 75th percentile and the 25th percentile. The IQR is essentially the range of the middle 50% of the data. Because it uses the middle 50%, the IQR is not affected by outliers or extreme values.

Standard Deviation The standard deviation tells you the approximate average distance of cases from the mean. This is easier to comprehend than the squared distance of cases from the mean. The standard deviation is directly related to the variance.

If you know the value of the variance, you can easily figure out the value of the standard deviation. The reverse is also true. If you know the value of the standard deviation, you can easily calculate the value of the variance. The standard deviation is the square root of the variance

The standard deviation gives a measure of dispersion of the data about the mean. A direct analogy would be that of the interquartile range, which gives a measure of dispersion about the median. However, the standard deviation is generally more useful than the interquartile range as it includes all data in its calculation. The interquartile range is totally dependent on just two values and ignores all the other observations in the data. This reduces the accuracy if extreme value is present in the data. Since the marks does not contain any extreme value, standard deviation give a better measures compared to interquartile range.