

Describing Distributions

Your description in sentence/paragraph form, needs to include the following:

Center

State what measure you are using and what the value is.

Spread

State what measure you are using and what the value is.

Shape of distribution

symmetry - is it symmetrical or not and if not, how is it not.

skew - how is it skewed left or right, what is causing the skew.

bell-shaped or not.

normally distributed or not - show calculations

gaps

Outliers – show calculations, state what they are, and what you did with them

Connection to the real world.- describe what the data is telling you about the real world.

Throughout your description use words that say what you are writing about. Do not use vague words like data, or graph. Do not write from your point of view, just state what is there.

For example: (I am totally making this up as an example for you.)

The Period 7's pulse rates' mean is 75 bpm, with a standard deviation of 5.5 bpm. The measurements are skewed to the right by the one outlier (see calculations) of 185 bpm. Otherwise the other measurements are distributed in a symmetric bell-shape with no large gaps. Students in period 7 have a typical pulse rate of about 75 bpm ranging from 35 to 125 bpm with one student having a much higher rate than the others. This class's pulse rates are normally distributed (see calculations). According to the U.S. National Institutes of Health and the American Heart Association report that 60 to 90 beats/minute is normal for teenagers at rest. (<http://www.livestrong.com/article/95271-normal-pulse-rate-teenager/>) This indicates that students in period 7, except for one, have normal pulse rates.