Run Chart

A run chart (trend chart or time series chart) is a graphical display of data plotted in some order. The run chart helps to decide when a change has resulted in an improvement. The run chart also displays data to make process performance visible.

Steps:

1) State the question the run chart will answer.
2) Gather the data- have at least 10 data points.
3) Develop a horizontal scale for the run chart. Time scale scales often used but alternatives can be more appropriate. Increments can include days, weeks, months, etc.
4) The scale should cover the time for which data exists but should also include the entire time of interest for the graph.
5) Develop an easy to read vertical scale that leaves room for data that may be smaller or larger than what is already available.
   a) Most of the data should occupy the middle half of the graph
   b) Labeled values on the axis should be round numbers with uniform spacing.
6) Plot the data points using a dot or other symbol. You can connect the symbols with a line but the symbol should be distinct from the line.
7) Label the graph
8) Calculate and place a median of the data on the run chart. This will be handy when it's time for interpretation.
9) Add any other information such as targets or unusual events.

Interpretation:

There are three rules to interpreting a run chart:

1) Shift: six or more consecutive points either above or all below the median. Skip values that fall on the median. These do not affect the shift.
2) Trend: five or more consecutive points in the same direction. Ignore two or more consecutive identical points. These do not affect the trend.
3) Runs: a series of points in a row on one side of the median. A new run begins when the line crosses the median.

Sample

Run Chart - Infection Rate vs. Target

Legend: Infection Rate %   Infection Rate % Run Alert   - - - Mean of Infection Rate %