

Mock Run Chart

Run charts, also called time series or line charts, are a simple tool to display and analyze data. The simplicity of this type of data visualization supports the everyday use of data for decision-making, which also grows interest among practitioners and community members in ensuring quality data.

Run charts can be created easily in Excel, or with pen and paper. Tracking classroom data can be a fun activity for teachers to do in a classroom with students. Develop a mock up of a run chart using the template to the right. Essential elements of a run chart include:

- A descriptive title
- Time frequency for the X-Axis (collected as often as possible for optimal learning)
- Units or title for the Y-Axis (often a percentage or number)

Basic Construction of a Run Chart (Time Series Chart)

TITLE

SCALE



Percent Students with Chronic Absence

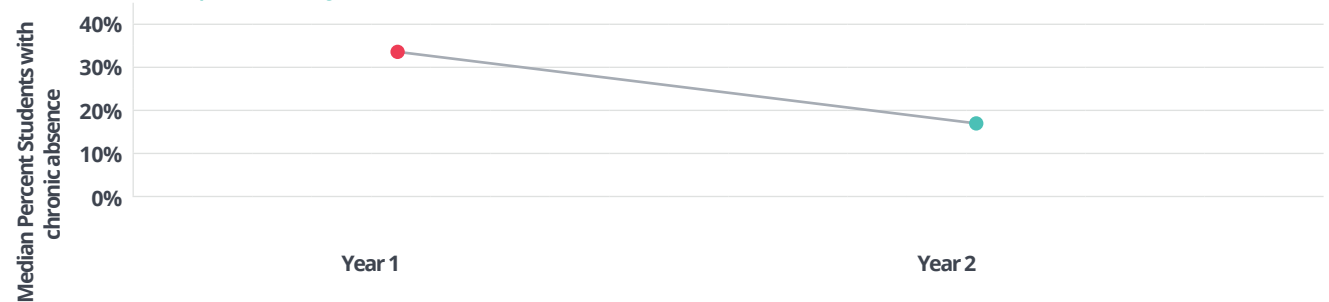
Sunnyside District

The figures to the right both display the same data set for chronic absenteeism at a high school. Both data sets include the same median of 32% (year 1) and 18% (year 2).

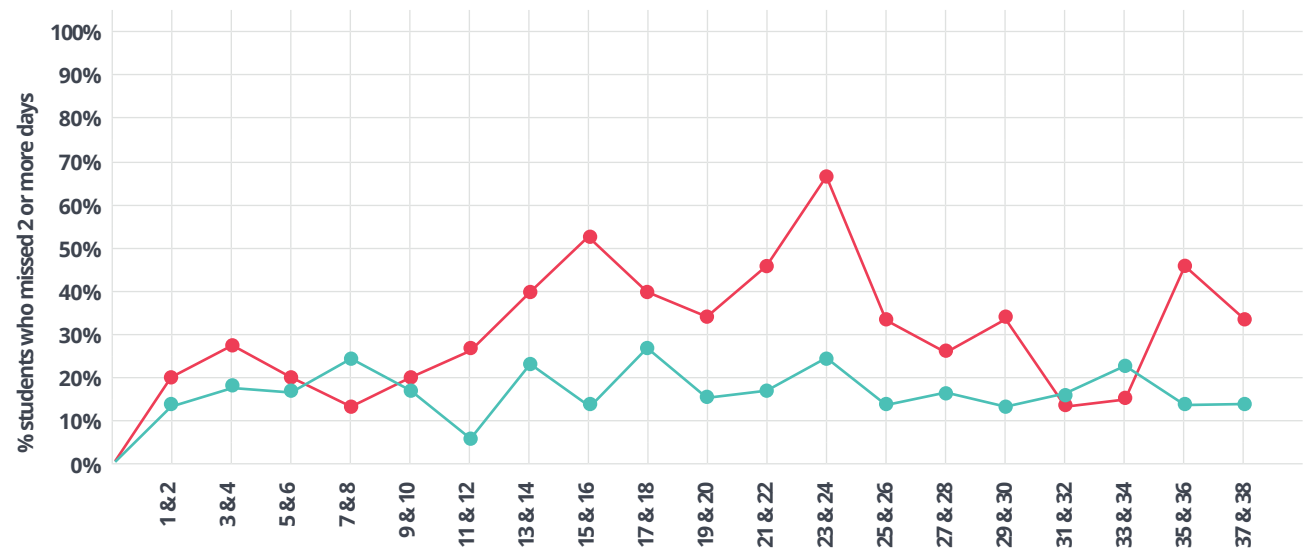
Top Right: The yearly data collapse all of the information into fewer data points. This is often how we look at data when we use before and after data, or summary statistics.

Bottom Right: In comparison, the continuous time series data chart shows us that same data displayed over time in two week intervals. By seeing our data more frequently, we benefit from important insights. For example, we see the variation of time, seasonal patterns and the impact of change ideas as we introduce them into the system.

Example: Yearly Data



Example: Continuous, Time Series Data



Measurement for Improvement

A well-designed run chart should tell the story of your improvement initiative. A good test for your run chart is to imagine that it is forwarded to a senior leader in your organization. Is enough critical information included that they could understand it with little context or conversation?

For example, the run chart below shows daily data for the number of minutes of reading instructional time in the classroom per day. There are a few key things you learn about this improvement initiative from looking at the run chart:

- The aim (90 minutes per day) is marked with a green line.
- The median (middle value) is marked with a red line. This is important to interpret and learn from the data.
- Data are collected and displayed daily, so we learn from successes and low points.
- Change ideas are clearly annotated on the run chart (more on this in the next section).



Attribution: Example inspired by and modified from Un Buen Comienzo, Fundación Oportunidad.

