Creating Graphs

by Capella Partnered with CARD

WHAT'S COVERED

This lesson will explore creating graphs by defining and discussing the following:

1. Four Guidelines for Ensuring Accurate and Complete Graphs
2. Skill Repertoire Building Line Graph
3. Behavior Management Line Graph

1. Four Guidelines for Ensuring Accurate and Complete Graphs

Because graphs are extremely important to data-based decision-making, we must work to ensure that they are as accurate and complete as possible.

Here are four guidelines for ensuring accurate and complete graphs:

1. Data points should be clearly drawn on the graph.

Point clarity is important to indicate the data for each session

2. Connect data points with a line to increase the visibility of any trends in the data.

Note, though, these two instances when data points should*not* be connected: when they represent different conditions and when there is a large break in time between when the data were collected.

Video Transcription

Let's look at an example of plotting behavioral data on a line graph. After data is collected on the targeted behavior, we look at the results of the measurement and include that on the data graph.

In order to plot data from a specific observation or session, we locate the first open spot on the bottom line of the graph, or the x-axis. At the first open spot, we mark down the date of the session, as well as the initials of the observer who collected that data. We then look at the results of the behavior measurement, in this case, three pinches per hour.

From the corresponding spot on the x-axis, we then move up on the y-axis to find the correct measurement, as indicated by the data. When we find the corresponding mark, in this case 3, we plot it with a closed-in circle, thus marking the rate of that targeted behavior on the specific date of the intervention.

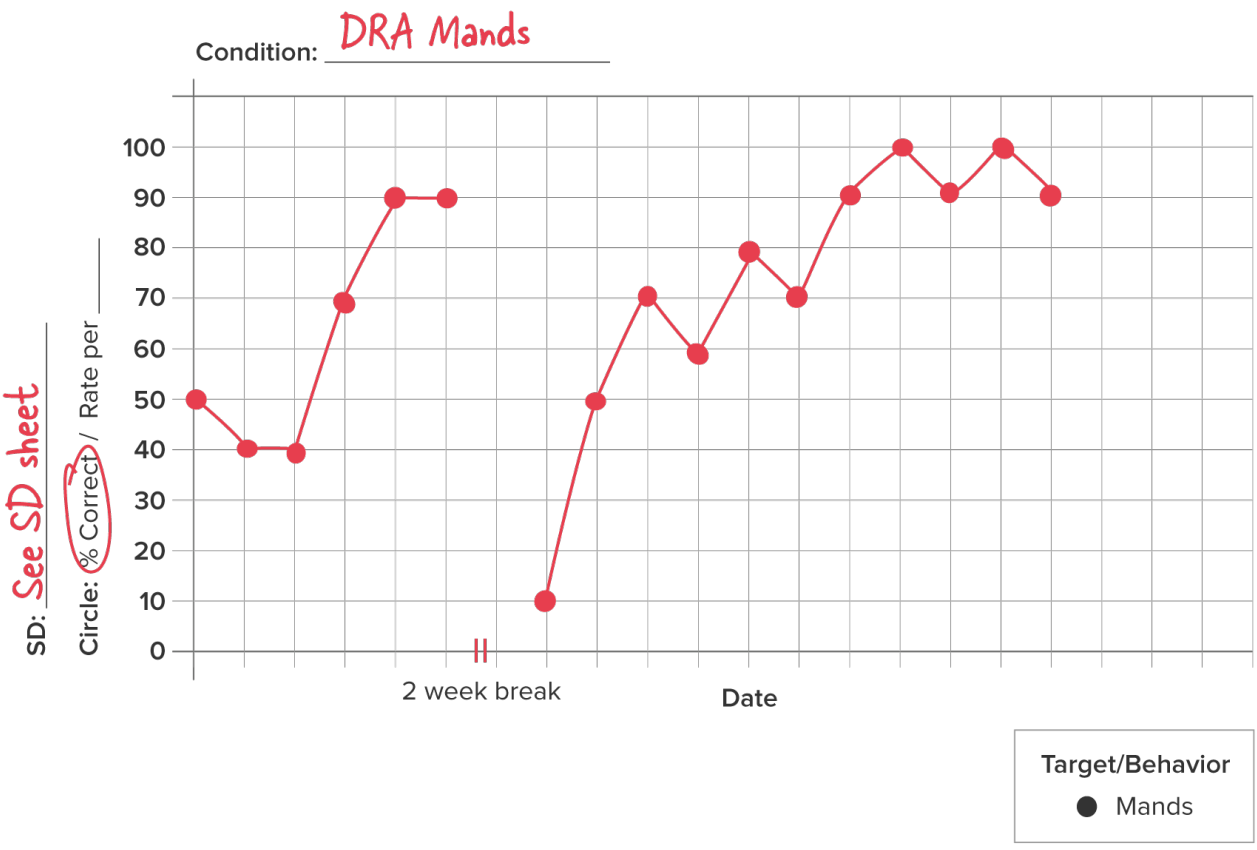
At the conclusion of the next session or observation, we repeat this process by again locating the next available spot on the x-axis, marking the date and the initials of the observer, and moving up to the corresponding measurement on the y-axis, in this case four pinches per hour. Once we locate the 4 on the y-axis, we again plot that location with a closed circle. We now want to connect the two data points by drawing a straight line between the previous data point and the current data point.

We continue this process every time a new data point is collected during an observation or session. And by connecting each data point together, we can then see the general trend of the behavior, or in other words, what the behavior is doing over the course of time.

3. Indicate any large breaks in time when data on the target behavior were not collected, such as when a patient is sick for several days or is on vacation for two weeks.

Note, there are two parts to this process:

- The data points that precede and follow the break are not connected with a line.
- An axis break symbol is drawn on the x-axis where the break occurred.



TRY IT

Question: Can you find the axis break symbol in the above graph?

Answer: It consists of two horizontal lines and is on the x-axis about one-quarter of the way from the y-axis, accompanied by a description of the reason for the axis break.

4. Clearly identify any data points that represent a value that exceeds the highest value on the y-axis scale.

In order to identify a data point that represents a value higher than the values on the y-axis scale, the data point is plotted at the highest existing value on the y-axis, and its true value is written in parentheses in a visible location above or below the data point.

2. Skill Repertoire Building Line Graph

When creating or analyzing skill repertoire building line graphs, use these three basic sections:

- Identifying information
- Description of the graph
- Graphed data

Section	What's included
Identifying information	• Full name of the patient • Month and year the data were graphed • Name of the lesson taking place when the data were collected
Description of the graph	• The target acquisition targets or targets for a lesson • The S^D or EO from the lesson • The type of summary measure represented • The y-axis scale • The condition in which the data were collected
Graphed data	• The date the data were collected • The behavior technician's initials • The data points and connection lines for the summary data on the target behavior

3. Behavior Management Line Graph

When creating or analyzing behavior management line graphs, use these three basic sections:

- Identifying information
- Description of the graph
- Graphed data

Section	What's included
Identifying	• Full name of the patient

information	• Month and year the data were graphed
Description of the graph	• The target problem behaviors displayed on the graph • The type of summary measures represented • The y-axis scale • The condition in which the data were collected
Graphed data	• The date the data were collected • The behavior technician's initials • The data points and connection lines for the summary data on the target problem behavior

Unlike the skill repertoire building line graph, behavior management data is often collected across several lessons and activities throughout a session (any instance in which the problem behavior occurs), so a particular lesson is not written on the behavior management line graph.

The identifying information must be completed each time a new behavior management line graph is used.

SUMMARY

In this lesson, you learned about creating graphs, reviewing the **four guidelines for ensuring accurate and complete graphs**: 1) Data points should be clearly drawn on the graph; 2) Connect data points with a line to increase the visibility of any trends in the data; 3) Indicate any large breaks in time when data on the target behavior were not collected; and 4) Clearly identify any data points that represent a value that exceeds the highest value on the y-axis scale. You also learned about creating and analyzing two different types of line graph, a **skill repertoire building line graph** and a **behavior management line graph**. The three basic sections of these graphs include identifying information, description of the graph, and graphed data.