

Working with Non-Linear Data

Shawn loves to sleep.

In fact, he loves it so much he wants to learn more about how people's sleep habits change as they grow older.

Shawn gathers data that compares people's ages to how long they sleep each night on average.

Shawn knows how to make a linear model to analyze data on a scatterplot.

He also knows that the change in sleep habits as people age will be shown by the slope in the linear model, because slope shows rates of change.

Using his data, Shawn makes a scatterplot.

But what is this?!

The association between the variables is non-linear!

Shawn knows that a non-linear association is best fit by a curve, not a straight line.

Shawn does not want to show curved lines to analyze data.

Unless he can find a good way to use a linear model, Shawn will not be able to analyze his data properly.

In this lesson, you will learn strategies for using a linear model to analyze non-linear data.

With these strategies, you can help Shawn analyze the relationship between age and how long people sleep.