

## Homework Assignment #2

### Tell a data story...and a tall tale

In the first homework assignment, you were to focus on a data collection *process*—one that may have felt far different from classroom assessments or other data points that teachers use. Yet children are more than sacks of test scores...and learning to capture and use other attributes in service of student outcomes is a critical skill to nurture within yourself. For this second assignment, we are going to move our focus to *product*. We will continue our “choose your own adventure” model. Here are your options as you move through this assignment:

1. Take a look at the five types of stories below. (These come from the Data Culture Project at the *other* MIT.) Select **two** that you would like to use to share data from Assignment #1.
2. Create a **chart for each**. It is totally okay to go with common representations, such as a line chart or bar chart. You don't have to get fancy (but can if you want to). You can draw the charts by hand or you can use software or an online program. If you don't have any ideas of charts to make or tools to use, take a look at the resources on the page for Session 3 ([https://github.com/tlricherson/TEESC\\_MIT\\_Data/blob/master/Session\\_3.md](https://github.com/tlricherson/TEESC_MIT_Data/blob/master/Session_3.md)). Here's the twist. One chart should **reveal a truth** that is within the data you collected...and the other should **conceal it**. We will see if we can pick out the difference between these during Session 3, as well as find ways to clarify the communication.

### Part I: Find two stories

#### Factoid

Sometimes while looking at data, you find the most interesting thing is the story of one particular piece of information. This could be an “outlier” (a data point not like the others), or it could be the data point that is most common. A detail about one particular piece of your data can fascinate and surprise people. It can also give them an easier way to start thinking about the whole set of data.

- One factoid is that...
- This stands out from the rest of the data because...
- I want to tell this story because....

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#### Factoid

When two aspects of your data seem related, you can tell a story about how they interact. The fancy name for this is "correlation". If one measure goes up, the other goes up too. If one goes down, the other goes down. In other cases, they might interact as opposites (when one goes up, the other goes down). You need to be careful not to guess about reasons for the interaction, but noticing the relationship itself can be a good story that connects things people otherwise don't think about together.

- The two pieces of data that interact are...
- The interaction is (up/up; down/down; up/down)...
- I want to tell this story because...

#### Comparison

Comparing between sections of your data can be a good way to find a story to tell. Often one part of your data tells one story, but another part tells a totally different story. Or maybe there is a smaller portion of your data that serves as an example of an overall pattern.

- The data to compare are...
- Comparing these things shows that...
- I want to tell this story because...

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#### Change

People like to think about how things change over time. We experience and think about the world based on how we interact with it over time. Telling a story a story about change over time appeals to people's interest in understanding what causes change, and they can often remember seeing the differences.

- The data show a change in...
- The data changed from \_\_ to \_\_...
- I want to tell this story because...

#### Personal

Some stories are interesting because they connect to your real life. Personalizing the story creates a connection to the real world meaning of the data and can be a powerful type of story for small audiences. Stories about someone's personal experiences can make the data seem more real.

- The data say...
- This connects to real people because...
- I want to tell this story because...