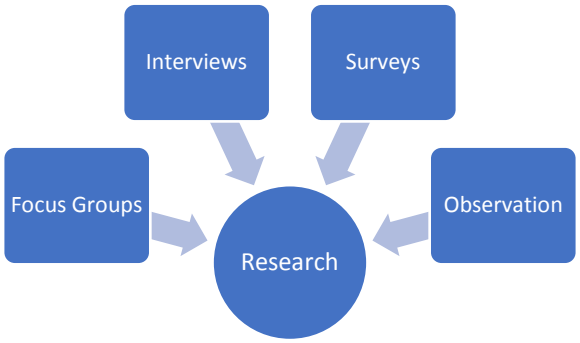
Storytelling with Data Mini Training Session

In CI, we want to base decisions on quantitative analysis as well as qualitative inputs. We need data and not just data. We want to validate results with data. To understand if the implemented changes were effective, it is important to understand the current state of a situation. When it comes to data, there may be data you already keep track of. In other cases there may be data that you need to go collect from somewhere new. There are many different types of data and ways to collect it.

Data Types and Collection Methods

Data Collection Methods:



Types of Data:

Quantity: How much do we do?

Efficiency: Cost per unit, process time

Quality: How well did we do it?

Effect: Is the customer better off? Did the customer achieve desired results?

Qualitative data is descriptive information about characteristics that are difficult to define or measure or cannot be expressed numerically. Quantitative data is numerical information that can be measured or counted.

There is no shortage of data that we interact with in our work every day. The trick is learning how to convey a meaningful message with the data in front of you.

Ways to Tell the Story

The following pages demonstrate different approaches to telling stories with data. Depending on your audience and your objectives for sharing the data, there will be a different message you need to get across. Here are five different techniques for telling stories with data:

- Finding a “Factoid” Story
- Finding an “Interaction” Story
- Finding a “Comparison” Story
- Finding a “Change” Story
- Finding a “Personal” Story

Finding a "Factoid" Story

Sometimes in large sets of 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

_____

_____

_____

_____

We want to tell this story because

_____

_____

_____

_____

Finding an "Interaction" Story

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. If 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 the data that interact are

_____ _____

_____ and _____

_____ _____

The interaction is

_____

_____

_____

_____

We want to tell this story because

_____

_____

_____

_____

Finding a "Comparison" Story

Comparing between sections of your data can 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

_____ _____

_____ and _____

_____ _____

Comparing these things shows that

_____

_____

_____

_____

We want to tell this story because

_____

_____

_____

_____

Finding a "Change" Story

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 _____

_____ _____

We want to tell this story because

_____

_____

_____

_____

Finding a "Personal" Story

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

_____

_____

_____

_____

We want to tell this story because

_____

_____

_____

_____