

Planning Your Data Presentation

When you're deciding how to present your data, start off by putting yourself in your audience's place. What would they want to take away from the presentation? How does that match up with the message that you're trying to give them? Here is a list of a variety of things to help guide you through your planning process.

What can I do with my data?

Using data in a presentation can help you meet a number of your goals. You can do things like:

- identify and highlight a situation
- provide evidence for an assumption or idea
- pose a question about something surprising
- try to answer to a question
- tell a story about something

What kind of data do I have?

When you use data in a presentation, it's important to understand what the data is and how it was gathered. We generally talk about data in two categories – **quantitative** or **qualitative**.

Quantitative data generally gets at the what, where and when of something.

The natural sciences (physics, biology, epidemiology etc) use this type of data to make objective measurements about some measurable phenomenon in the world. Think about Einstein, or Curie. You can collect quantitative data through things like multiple-choice surveys, or numerical data gathering about an experiment or situation.

Qualitative data generally gets at the why and how or something.

The social sciences (anthropology, education, political science, etc.) use this type of data to get at the reasons behind human behavior and decision-making. Think about Freud. You can collect qualitative data through things like focus groups, tape recordings or interview, or free-response surveys.

Of course almost all the fields of study that do research use both techniques. So what should you do? Generally it's best to combine all the types of data you have to create the most compelling and convincing argument that you can!

How should I show my data?

There are lots of ways to share your data with your audience. In terms of presenting it, you can share it on a computer or overhead projector, on paper, or in other ways (CDs, tapes, etc.). Here are some of the ways you can present your data visually:

- **Tables** – Don't be intimidated by raw numbers - sometimes they can create the most compelling argument. These work particularly well when your audience has time to look them over later.
- **Graphs** – Graphs are a great way to make large sets of data easier to understand. A single graph can represent thousands of data points in one clear picture! Designing a good graph is hard, but can be well worth the effort. These work best to show comparisons or causes.
- **Narratives** – Narratives are stories from real people. You can share quotes, audio recordings, pictures, or anything else (that you get permission to share). These work well to get a quote

stuck in someone's head, or to make people understand the true impact of some set of data by humanizing it.

- **Maps** – Maps are a really good way to put some set of data on a solid footing. You can add numbers onto a map to show how data differs by region. This is kind of like a graph, but adding numbers to a map is often more understanding to people than a more abstract graph. This works particularly well when you are making an argument about one location standing out from another.

There are lots of other, more creative, ways to present your data, so don't feel constrained by these general guidelines.

How do I create a convincing argument with my data?

Generally when you're presenting data you are trying to convince someone of something, or that something is important and needs action. So how do you make a compelling argument? It all goes back to putting yourself in your audience's shoes. Here are a few questions to help:

- What pre-conceived notions or ideas are they coming in with?
- How can I give them a channel to follow up on if I do convince them?

Regarding how to present your data, there are a few specific things that people pay attention to when looking at data:

- **Comparisons** – Try to highlight comparisons in your data set. People don't know what 50 of something is, but when you compare it to 5 of something, suddenly it becomes much more clear.
- **Causality** – If you are trying to make an argument that one situation is caused by another, then make sure all your data reinforces that. Saying that A caused B is often hard to prove conclusively, but you can certainly suggest it as a likely scenario.
- **Integration** – If you make an argument about two sets of data, integrate them into the same image. People have a hard time remembering things separated by the flip of a slide or piece of paper. Integrate all your evidence together to make the most compelling argument!
- **Trust** – Be open to the fact that your audience might show up with any reasons to believe you. You have to convince them that you and your data are reliable. Include sources for your data and information about your background.
- **Honesty** – It's easy to lie with data. You can tweak graphs a hundred different ways to tell some kind of story (that's what most advertisements do). Be honest about your data and how you present it. Don't be afraid to answer "I don't know" (just make sure you follow it up with a "but I'll find out").