Visualization Dashboard Creations

1. Understand your audience

When you're creating a data visualization, remember – it's not about you. In fact, it's all about the people you're sharing your visual with. You need to understand the situation they're trying to improve, rectify, or understand. Once you're clear on that, you can work with them to identify what questions you should be asking to tell the best and most helpful story with your data.

Author and data storyteller, Brent Dykes, shared in Forbes how being audience-focused is about "gaining context and clarity from the audience on their key challenges, activities and goals." Boiled down to the basics, this means that you need to understand your audience's needs to deliver truly valuable insights.

2. Communicate to a specific audience

It's good to understand your audience, but you also need to know the best way to get your point across. Dashboards are built to show different information to different people. When you're creating your dataviz dashboards, you need to keep your audience in mind. Not everybody has the same level of skill when it comes to analyzing data, and not everyone ingests content – visual or otherwise – the same way.

Based on a person's role, they'll be engaged and interested by different types of visualizations. For instance, strategic decision-makers may prefer more sophisticated visuals, while someone else might better receive a binary-type interface. If you're creating and sharing visuals with an audience that's not data-literate, remember to keep the viz simple, and clearly guide them to the right insights.

When your audience is composed of people from different backgrounds and roles, communicating effectively can become more difficult. Best Practice in this situation is to aim your dataviz at the persona you've identified as a priority, making sure to respond to their questions and anticipate any roadblocks they may face as they attempt to action your insight.
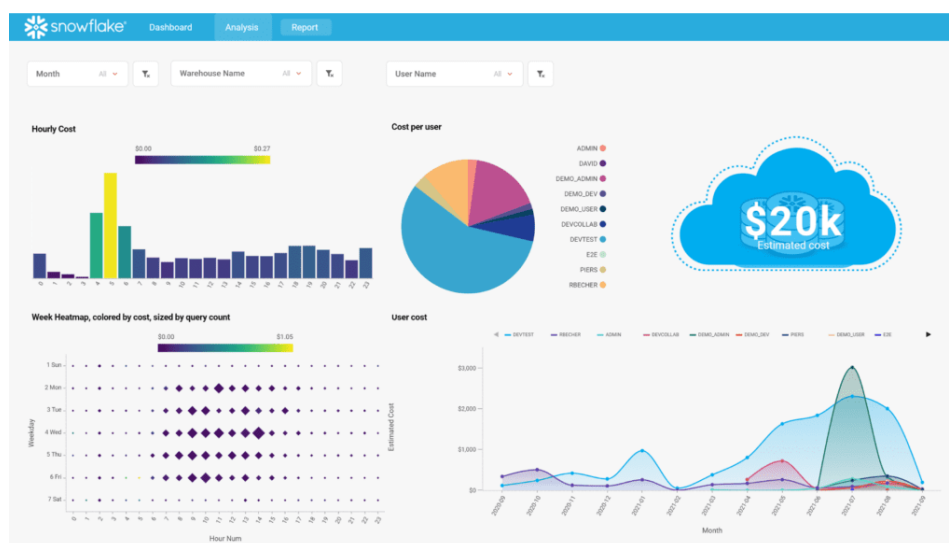
3. Choose the best visual(s)

Find the right visual for your data story

Choose the best visualization for the data story you're creating based on how much and what type of data you're working with, and by (once again!) considering your audience. For example, a Pie chart is not an optimal choice to visualize vast amounts of data, and analyzing continuous data (data that changes over time), a Line chart would likely work best.

Don't overcomplicate the chart

Don't try and show or explain everything with your chart. If there's too much happening on your visualization, it will become confusing, and you'll lose your audience's attention.
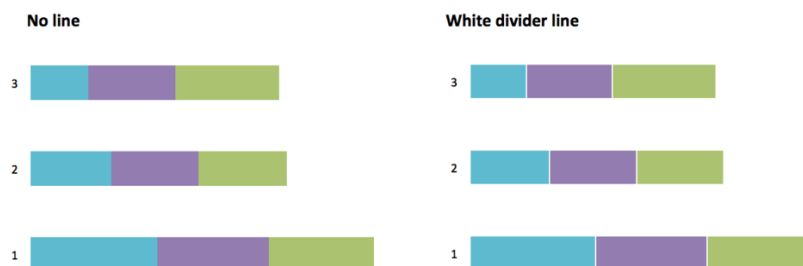
Avoid using too many charts

If you clutter up your dashboard with unnecessary charts it can muddy up the data story and become confusing. "Too many charts indicate that the focus is on visualizing all possible data, rather than telling a meaningful story with data," Piers Batchelor (Astrato Product Manager) explains in his blog, Top 10 data dashboard errors.

4. Use proper design principles

Lean into whitespace

According to Adobe, "White space, also known as "negative space," is empty space around the content and functional elements of a page." White space makes dashboard graphics and text easier to digest by giving them more breathing room, and "reducing the amount of text and functional elements that users see at once". Using white space is not a waste of space. It can help your audience understand the data story quicker if they're less overwhelmed.

Don't use too many colors

In most cases, four and six colors are ideal for your dataviz. Piers suggests that creators: "Avoid using too much color. Stick to the fundamental rule—keep it simple. Simplicity leads to understanding and keeps your audience on board."

And for those who want to explore colors and color palettes in-depth, he also suggests these helpful web resources: ColorBrewer, and Viz Palette.

5. Provide context for visualizations

Visuals without context make it harder for your audience to understand the data or quickly draw insights from the visualization. When you add in context like labels, on-hover information, reference lines or minicharts with your dataviz, you make the data story simpler and more clear.

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 Include labels and headings

Adding labels and headings to your charts adds extra context. When you provide key context, it can prevent your audience from being overwhelmed or suffering cognitive overload.

You could even add the business question that you're answering in your chart title, for extra clarity.

 Sorting is essential

Here are a few tips from Piers on sorting the information on your chart:

- Make sure the bars in Bar charts are sorted correctly
- The legend should be sorted in the reading order that the colors appear on the chart. Generally speaking, they should be ordered from top-left to bottom-right
- Don't mix scales! Or different types of data

 Scale your graph correctly

Make sure you scale your graphs from zero. Don't truncate, or shorten, a graph's axes as it could distort the data representation and make your message less impactful. Also, make sure you choose a scale that shows your data story clearly and is easy to interpret.