How to choose the right chart type for your data

In a previous video, you learned about dimensions and measures in data visualization. As a refresher, **dimensions** are qualitative data types that can be used to categorize data. **Measures** are quantitative data types that can be either discrete or continuous, and encoding is the act of translating dimensions and measures into visualizations. In this reading, you're going to learn more about dimensions and measures, different encoding techniques, and a guide to choosing the right chart type for your data.

As a BI professional, you will want to create visualization tools that are self-explanatory so that stakeholders can use them to answer their own questions instead of depending on you—which is why thinking about how you are using these elements is so important.

Dimensions and measures

Dimensions are inherently qualitative data—this means that they are subjective and explanatory measures of a quality or characteristic. Basically, this is data that records observations about the quality of the data. For example:

- Customer names
- Product names
- Geographic locations
- Observations
- Interviews
- Reviews

These examples are descriptive; they indicate characteristics of the data that aren't necessarily represented by numerical data.

Measures, on the other hand, are quantitative. Measures are what you will use to actually count the data and track changes over time. This data can be discrete or continuous—basically, this means they can be represented by numbers with limited or unlimited values. For example:

- Temperature
- Revenue
- Distance
- Weight
- Time

The kind of data you have can actually help you choose what kind of chart would be best to communicate your findings. Luckily, there is a helpful guide on choosing which type of data visualization works best for your needs. Note that this optional guide includes some primary chart types; there are many other charts and chart variations not shown in the table. If your data matches more than one description, you can create a combo chart that combines more than one visualization type.

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Techniques for encoding

As you have been learning, encoding is the act of translating the information represented by your dimensions and measures into visualizations. The artistic elements you choose communicate things about your data:

- **Line:** Lines in visualizations can be curved or straight; thick or thin; vertical, horizontal, or diagonal. They add visual form to your data and help build the structure for your visualization.
- **Shape:** Shapes are a great way to add eye-catching contrast—especially size contrast—to your data story.
- **Color:** Color can help differentiate different elements of visualization and communicate insights.
- **Space:** Space is the area between, around, and in objects. There should always be space in data visualizations so that the visualization isn't too cluttered.
- **Movement:** Movement is used to create a sense of flow or action in a visualization.

These elements can help you break down the parts of your data visualization and what it is communicating—which will help you develop effective visualizations.

Key takeaways

BI professionals are often focused on empowering their stakeholders and users with access to the data they need to answer their own questions. They do this by visualizing measures and dimensions in charts that complement their properties. These dimensions, measures, and strategies for encoding will help develop visualizations users understand and use.

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