Scientists and their various stakeholders often speak different “languages” when making sense of visualizations, due to varied backgrounds and experiences. How can we use their various meaning-making strategies to create visualizations to communicate between these groups?

The “rainbow” color scheme has several issues that confound interpretability. Yellow-green is perceptually most obvious to the human eye, but it is used to represent middle (unimportant) values. It uses six colors to represent two (or three) types of values, and those six colors do not represent equally-wide ranges. It has no cultural anchor for laypeople. Color-blind people cannot use it.

Scientists’ experience allows them access to shared meanings in colors, vocabulary, and geography that slow laypeople down. Removing non-essential “jargons” allows stakeholders to focus on the important information in the data: the patterns.

Don’t make it hard for your audience to find the meaning you intend or assume they have the same background as you. Foreground and highlight what’s important.

Western readers look for given information (key) on the left, new info to the right or down. Add familiar units alongside the scientific ones for lay audiences.

Add labels.

Better design helps stakeholders easily and quickly access your intended meaning instead of focusing on or getting confused by peripheral details. Try it with graphs!