Transcript for Case Study: Design Principles

Animation: youtu.be/-ink2VWqKyY
Module page: www.visabli.com/work/visual-scicomm-toolkit

0:00 We start with a canvas and a clutter of visual elements. How can we organize them so that our audience can make sense of it at a glance?

0:12 To start, we can use **alignment** to create structure in our visual. In design, alignment is the arranging of elements such that they line up in a layout.

0:21 Visuals with well-placed and well-positioned elements aren't just aesthetically pleasing; a clear structure establishes relationships between elements and guides our audience's eye. There are two types of alignment: **edge alignment**, to the top, left, right, or bottom, and **center alignment**, horizontal or vertical.

0:44 When elements are well-aligned, a visual looks clear and confident. And when elements are out of alignment, they become noticeable and can devalue a visual. However, when done intentionally, it can introduce movement and direction into a layout.

1:03 Next, we can use **proximity** to group elements in a layout. We bring things closer together to tell our audience they are related, and push things further apart when they are not. A good sense of proximity reduces visual clutter and clearly communicates the relationships between elements.

1:25 We can use **repetition** to further connect related elements. Repetition is the repeated use of design elements like **colors**, **fonts**, **lines**, **shapes**, and **sizes**.

1:38 Repetition allows our audience to predict the meaning of an element if they've seen it once before. Without repetition, our audience can feel disoriented, not knowing what they've looked at or where to look next.

1:53 And what if some elements are unique and special? We can use **contrast** to set them apart. In design, contrast occurs when elements in a layout are different. We direct attention towards what's important and away from what surrounds it.

2:12 We can create contrast by breaking the other design principles, such as changing an element's **shape**, **colour**, **size**, and **markings**, or its **orientation** and **grouping**, and we can take it a step further by adding **motion**.

2:28 In the case of our **diagram**, we can differentiate between elements using colour, and emphasize the mRNA by increasing its intensity and decreasing the intensity of

elements around it. We reserve arrows for conveying movement, and use leader lines instead of arrows to label elements.

2:50 And importantly, we design for **accessibility**. We make sure text is legible and at an appropriate size for our audience, and use a color blindness simulator to make sure our visual uses contrasting and comprehensible colors.

3:06 And that's how design principles are used to construct and clarify a story of protein synthesis! We can apply these principles to larger communication pieces in the same way. A diagram might belong in a **research poster** containing additional text and graphics.

3:27 When working with something large like a poster, we use an invisible grid to align consistently and accurately. We group related information together in sections, and separate them with space. We use the same style for all our section headings so our audience can recognize the start of a section, and we style the body text differently so they know they are reading a section's description rather than its heading.

3:57 You've seen the visual strategies in action; let's practice them through an activity.