#### ➢PCAR Technical Assistance Bulletin

# esigning Effective Slides for Online Learning

Online learning is a highly visual medium, making presentation slides an especially powerful tool for gaining learners' interest, guiding their focus, and making training more memorable. This Technical Assistance Bulletin describes best practices for creating effective and accessible slides, with some specific considerations for online learning environments. Slides are a powerful tool for gaining learners' interest, and making a training more memorable.

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#### Design for engagement

Before you start designing slides for your training, make sure you've planned out engaging activities that will allow learners to apply the knowledge and practice the skills they've learned. You can then design slides to provide structure and fill in content for those activities. By prioritizing engagement, your slides will support your training, rather than dictating it. The Technical Assistance Bulletin Engaging Learners in Active Online Learning provides additional ideas and recommendations.

#### 2 Make more slides

Aim to change slides every one to two minutes while you are presenting online. Frequently giving your learners something new to look at will help you keep their attention and prevent them from zoning out and doing other things. You will likely need more slides than you would in a face-to-face setting to accomplish this frequent change of visuals. Look for any slides that are full of text or that take a long time to get through, and break up their content into multiple slides (Atkinson & Mayer, 2004; Clay, 2018; Smith, n.d.).

## **3** Rigorously remove inessentials

Learning is an amazingly active cognitive process. Learners are simultaneously taking in verbal and visual information, deciding what's important, making sense of how different pieces of information fit together, and

comparing it all against their prior knowledge and experience. That's a lot of mental work! With all this active processing going on, learners can only pay attention to and make sense of a few pieces of information at a time (Atkinson & Mayer, 2004).

To avoid overloading this process and help learners focus on the most important points, take out anything that doesn't directly support your learning objectives (Mayer, 2014), including images, text, entire slides, or whole sections of content. While it can be tempting to add visually stimulating fonts, colors, backgrounds, and animations to "spice up" a presentation, use these purposefully and sparingly (if at all) to avoid distracting your learners from actual learning.

### 4 Maximize visuals

Research shows that most people learn better from words and pictures than from words alone, as long as those pictures are relevant to the content (Mayer, 2014). As much as possible, use photos, illustrations, screenshots, diagrams, graphs, charts, and other visuals to clarify and reinforce your key points. In the field of sexual violence, as in many other fields, it can sometimes be difficult to come up with appropriate visuals for our work. With practice and the right tools, however, it can become much easier.

As you are looking for images to use in your slides, be mindful of copyright restrictions. Sites like Pixabay and Unsplash provide free images you can use without asking for permission or crediting the artist. In addition, many images are available online under Creative Commons licenses, which allow you to use copyrighted images under certain conditions set by the creator. Visit CC Search (ccsearch.creativecommons.org) to learn more about Creative Commons and search for free images. You can also take and use your own photos - sometimes the best image for the job is one you create yourself.



Use photos, illustrations, screenshots, diagrams, graphs, charts, and other visuals to clarify and reinforce your key points. In addition to photos, diagrams can be useful for showing relationships between concepts, processes, parts of a whole, proportions, etc. In PowerPoint, you can use SmartArt templates to create a variety of customized diagrams. It's a good idea to save your finished diagram as an image (.jpg or .gif) and reinsert it into your PowerPoint, as SmartArt may not be compatible with all online learning platforms. Alternatively, you can use shapes in PowerPoint, Google Slides, Keynote, or other presentation applications to design your own diagrams from scratch.

You can also create your own charts and graphs to use in your slides. Just like when designing slides, remember to rigorously remove inessential information and visual elements from charts and graphs, such as unnecessary details, busy backgrounds, redundant labels, and special effects (Cherdarchuk, 2013). This helps learners interpret the relevant data more easily and accurately.

#### **5** Minimize text

Most people learn better from visuals and spoken narration than from visuals and written text. When there are words on the screen and the same (or similar) words being spoken simultaneously, learners' cognitive processes are often overwhelmed by trying to reconcile the two and decide on which to pay attention (Mayer, 2014).

With this in mind, avoid using complete sentences on slides, unless there's a particularly compelling quote or a short case study you want to include. Otherwise, look for a short phrase that will reinforce your key point, and elaborate on it as you speak (Clay, 2018; Mayer, 2014).

Move the full sentences you plan to say during the training into the "Notes" section under each slide. You can then print this out to have as a reference for yourself, and share it with learners after the training if you would like them to have the more detailed text for future reference (Atkinson & Mayer, 2004; Clay, 2018).

#### 6 Break training into chunks

Divide your training into bite-sized pieces and let learners digest one before moving onto the next, allowing learners to focus on and fully process each key point in turn (Mayer, 2014). As described below, "chunking" your training can be a good idea for individual slides, sections of a training, or even across multiple sessions.

- Aim to have only one idea per slide (Mrvova, 2020). If you're adapting an existing slide presentation, look for slides that have multiple bullet points and separate them into multiple slides. This helps direct learners' attention to each of your points, and makes it easier for them to connect what they're seeing with what you're saying at the same time.
- If you're using a diagram or graph with a lot of information, design your slides so that only one part of it is revealed at a time. Slowly add in more as you describe and explain the significance of each part (Clay, 2018).
- Divide your overall training into several logical chunks, and plan an interactive activity for each of them, providing learners with lots of opportunities to engage with the material and making each concept more memorable.
- If you have a lot of learning objectives and content to cover, dividing your training into digestible bites might mean creating a series of shorter trainings, rather than trying to fit everything into one long one.

## Provide cues to highlight and organize important material

Telling learners what information is important and how it is organized will help direct their attention and make it easier for them to follow along (Mayer, 2014). Provide learners with a road map through your content by sharing an outline of the different parts of the training and including section header slides before each new chunk.



Provide learners with a road map of the training by sharing an outline of the different parts.

Include a brief but descriptive headline on each slide that clearly states the important point of the slide. For example, instead of a bulleted list of sexual assault statistics with the heading "National Statistics," you might create a slide with the headline "A serious and widespread problem" and a simple chart showing one or two

significant statistics to make the point.

Consider using annotation tools, such as a pointer arrow or highlighter, to focus your learners on particularly important points on a slide as you talk. Use this sparingly, however, so that it doesn't become distracting or repetitive for your learners. It might be helpful to identify in advance just a few places in your presentation where this could be most useful, like moving the pointer arrow to different parts of a diagram or graph as you explain them, or underlining a few words on a slide to emphasize an especially important point (Clay, 2012; Mayer, 2014).

#### 8 Put instructions on slides

Use slides to help orient learners to activities. By including activity instructions on the slide, learners can participate with greater confidence. For example, when posing a question for group discussion, include the question on the slide so that learners can make sure they've understood it before answering. When you are setting up an activity that asks learners to use status icons, annotation tools, breakout rooms, etc., put clear and concise instructions on the slide so they can refer back if they have questions about what you're asking them to do (Clay, 2012).

In addition to written instructions, add icons to your slides to signal when and how you want learners to participate (Clay, 2012). For example, include a word bubble image on the slide when you want learners to type in the chat, and a raised hand image when you want them to use status icons.



# Accessibility is a social justice issue, and a valuable part of our work.

#### 9 Design for accessibility

Accessibility is a social justice issue, and an important part of our work. As you design your slides, there are some simple steps you can take to make them more accessible.

Use at least 24-point font for slide text, making it more readable and helping to prevent you from cramming too much text on your slides. Stick to common sans serif fonts, like Arial and Helvetica, which are more likely to be compatible with various online learning platforms. Also, make sure there's sufficient color contrast between the font and the background (Clay, 2018; Disability Access Services, 2014).

Avoid using color as the only way to convey meaning, ensuring that people who are colorblind have access to all of the information. For example, if you are highlighting a key term on a slide, make it bold or underlined as well as a different color. To show the correct answer out of a multiple choice list, place a checkmark next to the answer in addition to changing its font color. In charts and graphs, place labels directly on or next to their corresponding data points to eliminate the need for a color coded key.

Write in plain language so that information is clear, concise, and well-organized for your learners. This includes using everyday words and explaining any technical terms. Visit <u>plainlanguage.gov</u> to learn more.

Be prepared to provide alternate formats. Learners might ask for a digital copy of your slides, either before or after your training, for accessibility reasons. If you used the "Notes" section under your slides to keep track of what you planned to say in the training, this can be a useful resource to share when requested. It may also be helpful

to add alternate (alt) text to visuals and test the file's accessibility for learners who use screen readers (Disability Access Services, 2014). For step-by-step instructions on creating accessible PowerPoint files, visit <u>webaim.org/</u><u>techniques/powerpoint</u>.

As you present, remember to verbally describe important visuals such as graphs and images. This helps to direct learners' attention to the relevant points, and increases accessibility for those who are using screen readers or are dialed in by phone. In addition, consider providing detailed graphs or other visuals as downloadable handouts so that learners can zoom in on important information for greater readability.

#### **10** Test out your platform

Depending on the platform you are using for online learning, you may have multiple options for displaying your slides. In some platforms (such as Zoom), your only option might be to open the slides on your computer and then share your screen. In other cases (such as WebEx or AdobeConnect), you can upload slides directly into the platform, which is important for utilizing these platforms' annotation and other tools. Either way, be sure to test your slides ahead of time in your platform to make sure everything displays correctly and that any annotation, whiteboarding, or other plans for interacting with the slides will work for you (Clay, 2018).

#### References

- Atkinson, C., & Mayer, R. E. (2004). *Five ways to reduce PowerPoint overload*. <u>http://www.indezine.com/stuff/atkinson</u> <u>maye.pdf</u>
- Cherdarchuk, J. (2013, August 10). *Data looks better naked* [Blog post]. Darkhorse Analytics, Inc. <u>https://www.</u> <u>darkhorseanalytics.com/blog/data-looks-better-naked</u>
- Clay, C. (2012). From chalkboard to keyboard: Transitioning to the virtual classroom. Clay & Associates, Inc. <u>https://netspeedlearning.com/contact/?p=ebook&amp;r=virtual-classroom</u>
- Clay, C. (2018). 20 questions about PowerPoint in the virtual classroom. Clay & Associates, Inc. <u>https://netspeedlearning.</u> <u>com/contact/?p=nsi&r=20-questions-powerpoint</u>
- Disability Access Services. (2014). Seven steps to creating an accessible PowerPoint slideshow. California Department of Rehabilitation. <u>https://www.framingham.edu/Assets/uploads/about-fsu/accessibility/ documents/7-steps-accessible-ppt.pdf</u>
- Mayer, R. E. (2014). Research-based principles for designing multimedia instruction. In V. A. Benassi, C. E. Overson, & C. M. Hakala (Eds.), *Applying science of learning in education: Infusing psychological science into the curriculum* (pp. 59–70). University of New Hampshire Scholars' Repository. <u>https://scholars.unh.edu/cgi/viewcontent.</u> <u>cgi?article=1286&context=psych\_facpub</u>
- Mrvova, K. (2020, March 27). 13+ tips for running more engaging webinars [Blog post]. Slido. https://blog.sli.do/9-tipsengaging-webinars/
- Smith, K. (n.d.). *Need to teach online? How to do it right* [Blog post]. Skillcrush, Inc. <u>https://skillcrush.com/blog/teach-online/</u>

