

Content

Context

Why Focus on Presentations?

The ability to give compelling presentations is crucial for professors, staff members, and students alike – whether in a classroom, board room, or conference session. Well-designed and well-executed presentations can help you teach more effectively, secure grants, find helpful collaborators, and achieve recognition in your field. Successfully conveying complex information and ideas requires clarity, thoughtfulness, and engagement with your audience. Developing these public speaking skills can help you achieve your academic, research, and professional goals.

- ### Learning Outcomes
- Develop a compelling narrative structure
 - Create slides with visually interesting and accessible layouts
 - Incorporate active engagement strategies and tools
- To complete this sprint, you will...
 Create or modify a presentation to align with current best practices (including timing, structure, layout, and engagement).

Opportunities & Challenges

Impacts of Effective Messaging

Since fast-paced, visual media influence how we live and learn (Auxier & Anderson, 2021; Barnes, 2011; Turkle, 2011), effective presentations require mastery of oral and visual skills (Duarte, 2020). It is not enough to learn how to present effectively. We must also consider the spaces in which we are presenting (McLuhan, 1964). Higher education lives, in part or in whole, in virtual/online places, so we are competing with popular social media platforms for learner attention.

Donn't panic – you don't need to turn your class into a TikTok channel. (If interested, you can do that too, see [Ficca et al., 2022](#).) A key reason for the growth of social media platforms is their ability to facilitate participation and connection (Jenkins et al., 2013), which are crucial to learning (Kav, et al., 2018). Our goal is to help you transform a presentation from an information-delivery tool to a learning tool that provides information, builds connection, and fosters participation.

Length

Research-based recommendations on the structure and timing of presentations are varied. [TeaX](#) sets an 18-minute cap. Some put the optimal length at six minutes or less ([Guo et al., 2014](#)), others push the limit to 10 minutes ([Brame, 2015](#)), 19 minutes ([Bozarth, 2021](#)), or 20 minutes ([Kawasaki, 2005](#)). While length varies (according to context), the available evidence suggests that shorter presentations yield greater retention ([Manasra et al., 2021](#); [Collins & Ford, 2023](#)).

- Rather than offering firm guidelines on length, we recommend starting with key questions:
- Is a presentation the best way to offer this information? (See [50 Alternatives to Lecture](#) for other possible ways to facilitate learning experiences.)
 - What is the context and expectations surrounding your presentation? For example, a conference session with a required slide template should look different than an informally guided conversation.
 - Who is your audience (and what is their focus and motivation for attending)?
 - What key points do you hope your audience will retain?

Structure

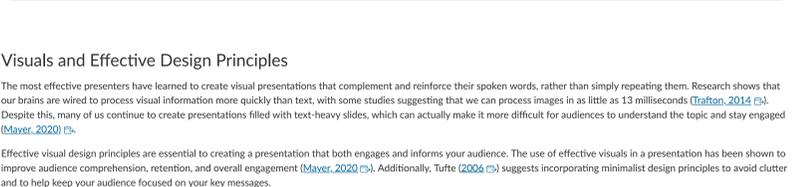
Once you have determined the context, audience, and essential points of your presentation, keep in mind the following design principles for your presentation structure.

- Deliver information in manageable "chunks."** [Mayer's limited capacity principle \(2020\)](#) suggests audience members can only keep 5-7 chunks of information in working memory at once, so build in time for your audience to process your points. This principle assumes that the audience is motivated to learn and listen and not be distracted. Also, the complexity of the information will likely reduce the amount of information your audience can process.
- Use visuals ... with a caveat.** [Mayer's signaling principle \(2020\)](#) recommends aligning your oral delivery with well-crafted, relevant visuals. Don't add visuals simply for the sake of doing so. Add visuals that are directly relevant to the point you are making. Extraneous visuals reduce retention. See the [Visuals and Effective Design Principles](#) section for more detailed information.
- Use text sparingly** ([Duarte, 2008](#)). Recommendations about the optimal amount of text are as varied as recommendations for the optimal length of a presentation. [Google](#) recommends 5 lines/25 words maximum. [Duarte \(2012\)](#) argues that any slide should pass the "Glance Test," which means an audience member should be able to process the meaning of your slide in three seconds. The context of your presentation matters, of course, but as with most design guidelines, less is more. And this is certainly true of text on presentation slides. The goal is to use text to reinforce your oral delivery, not as your presentation notes or your outline.
- Reveal text as you speak.** Even a slide with five bullet points and 25 words can be hard to process if all the lines and words are delivered simultaneously and you are speaking. As much as we like to think we can multitask, most of us are terrible at it ([Clinton-Lisell, 2021](#); [Hart, 2021](#)). If your oral delivery and visual information don't match, your audience will either be reading your text or listening to you. Synchronize their reading/listening by revealing visual information (especially text) as you deliver it orally ([Duarte, 2008](#)).
- Create interactivity.** Allowing them to process elements (where listeners can engage with your content directly through polls, chat prompts, or other opportunities) can help reset your audience's attention and build in the interest the information you've given them (see #1 above). This can also help your audience develop "social presence," a necessity for effective learning ([Lowenthal & Dunlap, 2020](#); [Garrison, 2016](#)).

Presentations that employ these principles can improve retention, and, in classroom settings, they can be a valuable tool in building effective, collaborative learning environments. They also have practical advantages for you as well, especially for recorded lectures delivered in online courses or online conference presentations. These advantages (adapted from [UC San Diego](#)) include:

- Less production time:** More time spent on planning, less time on recording and re-recording.
- Fewer captions:** All videos should include captions. Shorter videos have fewer words to caption. Even though captions are often automated, they should always be edited for accuracy.
- Quicker availability:** Shorter videos require less bandwidth and take up less space when uploading and/or downloading.
- Better reusability:** By "chunking" your content by specific topics or themes, you may find that a video lecture in one class or setting is usable in other settings without re-producing the video.

For more ideas on structuring your presentation, see the following slides adapted from [Visme's eBook A Non-Designer's Guide to Creating Visually Captivating Presentations](#).



Visuals and Effective Design Principles

The most effective presenters have learned to create visual presentations that complement and reinforce their spoken words, rather than simply repeating them. Research shows that our brains are wired to process visual information more quickly than text, with some studies suggesting that we can process images in as little as 13 milliseconds ([Tratto, 2014](#)). Despite this, many of us continue to create presentations filled with text-heavy slides, which can actually make it more difficult for audiences to understand the topic and stay engaged ([Mayer, 2020](#)).

Effective visual design principles are essential to creating a presentation that both engages and informs your audience. The use of effective visuals in a presentation has been shown to improve audience comprehension, retention, and overall engagement ([Mayer, 2020](#)). Additionally, [Tufte \(2006\)](#) suggests incorporating minimalist design principles to avoid clutter and to help keep your audience focused on your key messages.

To create an engaging presentation, it is crucial to pay attention to specific design elements such as imagery, fonts, and other visual media. The following sections explore these key components and how they can be utilized to construct a captivating visual story.

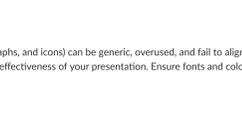
How Many Slides?

A popular formula for slide number and length is Guy Kawasaki's 10/20/30 rule ([2005](#)). This idea states that a presentation should have no more than 10 slides, last no longer than 20 minutes, and use a font size of no less than 30 pixels. The primary aim is to encourage presenters to be concise and focused in their presentations, while also keeping the audience engaged ([Kawasaki, 2005](#)).

See [Diner's \(2022\)](#) post, [How many slides per minute of presentation length and slide number](#) for more ideas.

Photographs

To create a unique and memorable presentation, avoid using generic stock images – particularly those that are overused and/or low-quality. This includes photos of people shaking hands or stock actors with fake smiles in an office setting. Instead, choose natural-looking photographs with authentic lighting, poses, and settings that are relevant to your topic and target audience. Or better yet, take your own!



[Harold](#) encourages you to not include his photo in your presentation (unless it's done ironically).

When choosing images, it is important to select appropriate examples that complement the theme of your presentation. Some options for images to search for include thematic images, abstract images, real-life photos, and humorous images or memes ([Visme, 2020](#)).

- Thematic images are a great way to illustrate the concepts and ideas in your presentation.
- Abstract images can create a mood or feeling that aligns with your message.
- Real-life photos can add authenticity to your presentation and can easily be captured with your smartphone.
- Humorous images or memes can be an effective way to lighten the mood and offer a memorable perspective on a topic.

Additionally, don't be afraid to play around with the images you find or create – edit the [cropping](#) or [color palettes](#) of your visuals to better contextualize or align photographs with your topic ([Avery, 2015](#)).

Graphics

Like photography, some graphics (including word art, charts, graphs, and icons) can be generic, overused, and fail to align with the presentation's message. Investing time and effort into customizing these visuals will similarly improve the impact and effectiveness of your presentation. Ensure fonts and color palettes used within these visuals (e.g., axis titles, outline colors) align with the rest of your content.

Guidance on Fonts and Typography

Fonts and typography play a significant role in the readability and accessibility of presentations. Similar to deciding on the number of slides to include in your presentation, there is no specific rule that we should follow. Font sizes are usually measured in points (pt) or pixels (px), where 1pt is 1/72 of an inch, 1px is 1/96 of an inch, and therefore 12pt is the same as 16px ([Penn State, 2022](#)). According to IEEE ([2020](#)), the largest font in your presentation should be 36pt or greater, and the smallest font should be no smaller than 18pt.

Example:

This font size is 36pt.

This font size is 18pt.

Alternatively, Guy Kawasaki's ([2005](#)) 10/20/30 rule recommends 30pt as the smallest acceptable font size (hence 10 minutes, 20 slides, 30pt font).

The accessibility of your presentation goes beyond font size, however. Personalized format readability, including font sizes, kerning, and line spacing, is crucial for individuals with varying reading needs ([Wallace et al., 2020](#)). Additionally, research shows different fonts are more effective for different age groups, with the Georgia typeface being a suitable option for individuals over 40, Arial being a strong choice for a general audience, and Poppins being ideal for a younger audience ([Wallace et al., 2022](#)).

Georgia: Missouri Online

Arial: Missouri Online

Poppins: Missouri Online

Based on these findings, sans serif fonts (such as Arial and Poppins) are generally preferable in presentations because they are simpler and easier to read. It is also important to use a consistent typeface across a presentation (use the [Replace Fonts](#) tool in PowerPoint to check how many fonts are in your document), pay close attention to contrast, and ensure there are no accessibility issues.

Since the ultimate goal of creating an effective presentation is to produce visuals that stick with your audience, avoid text-heavy slides and always be cognizant of fonts while designing your presentation. For more detailed information on this topic, consider enrolling in Missouri Online's [Typography Sprint](#).

Audio and Video

Incorporating multimedia strategically and in moderation within your slide deck can be highly effective in setting the appropriate tone for your presentation or reinforcing your key messages. It is important to consider the placement of audio and video content within your presentation – always embed media within your slides, and avoid overwhelming your audience with too much multimedia content on any one slide.

Instead, use audio and video content to supplement your key points and to break up your presentation into smaller, more digestible chunks ([Mayer, 2020](#)). Be sure to introduce your audio and video content with a brief explanation of its relevance, and always test your media content before giving your presentation to ensure that it runs smoothly and you do not encounter any technical difficulties (e.g., ensure Zoom's [sharing computer sound in a screen share](#) is set up correctly). By following these best practices, your audio and video content will enhance, rather than detract from, your presentation.

Technology

Slide Creation Software

PowerPoint, Google Slides, and Canva are three different software applications that can be used to create slide-based presentations. Each has unique features and considerations. If you are interested in learning more, our Academic Technology services offers [online trainings](#) and [1:1 consultations](#) on PowerPoint (part of Microsoft 365) and Google Slides (part of Google Workspace).

Application & Price	About	Pros	Cons
PowerPoint (Free for UM System faculty and staff, contact your campus IT Helpdesk for download support)	Part of Microsoft Office, PowerPoint can be installed on Macs and PCs for offline use and is the OG presentation software.	<ul style="list-style-type: none"> Many free templates, animation features, and customization options. Can record narration or insert audio into slides. Built-in accessibility checker. 	<ul style="list-style-type: none"> Too many options may be difficult for beginners. Limited desktop collaboration options. Files with multimedia can become very large and make the presentation slow to load.
Google Slides (Free for UM System users via G Suite)	Google Slides is available through Google Drive and is most often accessed through a web browser.	<ul style="list-style-type: none"> Real-time collaboration friendly. Automatic saving (and access to prior revisions). Simple interface allows beginners to learn tools quickly. 	<ul style="list-style-type: none"> Limited built-in design options. Not as many advanced features (transitions, smart art) as PowerPoint. Requires internet for most uses.
Canva Presentations (Free account, some templates and resources available for extra cost)	Canva offers slide presentation templates within its browser-based suite of graphic design tools.	<ul style="list-style-type: none"> Large library (both paid and free) of visually appealing templates and graphics. Drag-and-drop interface. User-friendly and easy to understand. 	<ul style="list-style-type: none"> No UM System Helpdesk support. Not as widely used or popular as PowerPoint or Google Slides. Fewer advanced features.

Sourcing Images

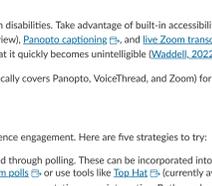
Remember to properly cite all multimedia – including images, charts, photographs, and videos – as needed in your presentations. This can be done through in-text citations, footnotes, or other methods according to your preferred format (see [APA](#) and [MLA](#) guidance). Alternatively, you can choose to use free stock images or graphics, some of which do not require attribution.

Many websites provide easy access to free stock images, including [Pexels](#), [Unsplash](#), and [Pixabay](#). [The Noun Project](#) also provides easy access to free icons (with an account). There are also collections specifically devoted to diverse imagery, including the [Gender Spectrum Collection](#), [Docket](#), [Disabled and Here](#), [Nappy](#). However, it is up to you to check any license terms and conditions to ensure proper use and attribution.



Presenting Your Work Online

Now that you have created your slides, you may need to decide how you will present and/or host your presentation online. This depends upon whether you get to choose your platform, which tools are available, and if your presentation is synchronous (real-time) or asynchronous (recorded for later viewing).

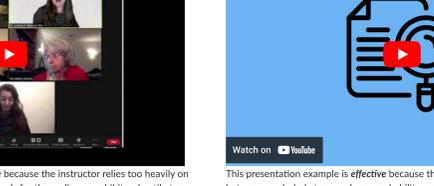


Synchronous presentation platforms include [Zoom](#), [Teams](#), and other video conferencing applications. Both Zoom and Teams allow presenters to share their screen as a default option, but this may not offer enough flexibility for some – especially if you would like to see notes on your own screen, but hide them from the viewers, at the same time. If you're using Zoom, consider sharing only a [portion of your screen](#) or [presenting slides as a virtual background](#) and using a notes document in the background. Teams also allows a [Presenter Mode](#) for PowerPoint slides with hidden notes.

Before deciding upon an asynchronous platform to use, consider how you would like people to view and (potentially) engage with your presentation. [Panopto](#) and [VoiceThread](#) are two platforms that host and share multimedia presentations, but each has different features and benefits. Both are integrated into Canvas and supported by the UM System.

[Panopto](#) is particularly good at capturing lectures and managing/organizing videos. It offers screen recording, and automated video editing, and automated captioning. If you'd like a one-stop-shop to record and manage your presentations, Panopto might be a good choice. One popular use of Panopto is [introductory videos in discussion forums](#), with users shooting quick webcam-based videos that are posted directly into a dedicated thread.

[VoiceThread](#) is a multimedia platform best suited for hosting interactive (but still asynchronous) conversations around presentations. Viewers can leave their own audio or video comments along with text annotations. VoiceThread is a great option for presenters who value interactivity and engagement. Many instructors use [VoiceThread for student presentations](#), especially those that require peer feedback, like the final project embedded below.



Accessibility

All presentations should be inclusive and accessible to people with disabilities. Take advantage of built-in accessibility tools, like the [PowerPoint accessibility checker](#) (which includes [color contrast](#), [alt tags](#), and [descriptive linking](#) review), [Panopto captioning](#), and [live Zoom transcription](#). Remember, however, that auto-generated content (such as alt tags and captions) is often incorrect – to the extent that it quickly becomes unintelligible ([Waddell, 2022](#)).

Check out our [Digital Accessibility for Canvas sprint](#) (which specifically covers Panopto, VoiceThread, and Zoom) for additional information.

Engaging Your Audience

Perhaps the most important part of any good presentation is audience engagement. Here are five strategies to try:

- Polls:** Get immediate feedback and keep your audience engaged through polling. These can be incorporated into any synchronous session. In-person attendees can raise their hands or use [clickers](#). Virtual viewers can participate in [Zoom polls](#) or use tools like [Top Hat](#) (currently available at UMKC only).
- Games/Simulations:** Incorporate a game or simulation to make your presentation more interactive. Both synchronous and asynchronous sessions can [link slides directly](#) for a "choose your own adventure" style, like [Cure Your Discussion Board Blues](#), an FTTC Presentation.
- Breakout Groups:** Encourage [smaller group discussion](#) to help audience members connect with your content and in each other. Consider scaffolding their conversations with a few prompts or an activity like [Think-Pair-Share](#).
- Visuals/Pops:** As described above, multimedia and graphics can help make a presentation more memorable. In addition, consider using a whiteboard (either physical or virtual) to illustrate key points.
- Storytelling:** Perhaps the most powerful engagement tool, storytelling can help capture and hold your audience's attention. Describe case studies – or even personal experiences – to exemplify key points and make your presentation more relatable.

Consider enrolling in our [Sensational Synchronous Sessions](#) and [Less Zoom Doom. More Engagement](#) sprints for more ideas.

Keeping Your Cool

Leading a presentation can be nerve-wracking, but several strategies may help you keep your cool and deliver a confident and engaging presentation. First, prepare thoroughly to reduce anxiety and improve confidence – try practicing your full presentation three times beforehand, even if you're just talking to your pet. Second, incorporate [breathing techniques](#) and [mindfulness practices](#) to stay focused and centered during your presentation. Finally, if you're asked a difficult or unanswered question during a presentation, consider acknowledging the query and addressing the underlying need ([Carucci, 2020](#)).

Some presenters find writing out a full script is helpful to ensure they stay within their allotted time and cover all their content. A script is also useful for creating [captions](#) after a recording. However, we caution against reading word-for-word, which can make your speech sound stilted, monotonous, and unnatural. If you would like to use notes while presenting virtually, consider using [separate screens](#) or [rearranging your windows](#) – and make sure your text is large enough to read comfortably.

Check out [5 Ways to Get Over Your Fear of Public Speaking](#) from Harvard Business Review, [How to Overcome 'Impostor Syndrome'](#) from the New York Times, and [Scared of Public Speaking?](#) from Toastmasters International for more tips.

Examples

Ineffective Presentation

This presentation example is *ineffective* because the instructor relies too heavily on reading from her notes, provides no visuals for the audience, exhibits a hostile tone, and goes over the class time limit.

Effective Presentation

This presentation example is *effective* because the instructor strikes a balance between a scholarly tone and approachability, uses streamlined visuals with minimal text, and keeps the presentation concise and relevant.

Next Steps

- Develop a first draft of your presentation for this sprint's "Create" assignment ([see full description](#)). This could be anything from a few slides to an entire script.
- Make an online appointment through our [Connect](#) [Business page](#) and share your draft with a designer, who will provide advice and support in a one-hour consultation.
- After receiving feedback from a designer, revise your draft accordingly.
- Post your final work, along with your self-assessment and reflection, on the [Create Discussion Board](#).

Resources

Best Practices

- [The 10/20/30 Rule of PowerPoint](#)
- [A Non-Designer's Guide to Creating Visually Captivating Presentations](#)
- [Choosing the Perfect Image for Your Presentation](#)
- [Presentation Zen](#)

Scholarly Work

- Bozarth, D. J. (2021). [Video viewer study](#). TechSmith Corp.
- Duarte, N. (2008). [Slideology: The art and science of creating great presentations](#). O'Reilly Media.
- Mayer, R. (2020). [Multimedia learning](#) (3rd ed.). Cambridge: Cambridge University Press.
- McLuhan, M. (1964/1994). [Understanding media: The extensions of man](#). MIT Press.
- Tufte, E. R. (2006). [Beautiful evidence](#) (Vol. 1). Cheshire, CT: Graphics Press.