

# Design Guide: for Visual Presentations

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## Overview

This guide offers a synthesis of the current best practices relevant to the design of visual presentations. The practices are presented in a simplified format for use as a reference point across multiple contexts. The works of Richard E. Mayer, Roxana Moreno, Robin Williams, Garr Reynolds, Connie Malamed, Melanie Hibbert, Scott Dadich, and shiftlearning.com serve as primary inspiration. Full reference information is provided for each source at the end of the guide.

## Guidelines

### Screen Layout

**Mayer's Spatial Contiguity Principle:** People learn better when onscreen text is presented next to the animation that it describes

**Mayer's Coherence Principle:** People learn better when extraneous elements are excluded

- Use the **rule of thirds**: split the screen into a 3x3 grid of 3 equally spaced rows and 3 equally spaced columns, then place important elements at 1 or more of the intersecting points
- Group content to create meaning and connection (e.g. explanatory text near related visuals)
- Establish a visual hierarchy to let viewers know where to look
- Organize horizontally or vertically – in columns or rows
- Create a strong focal point
- Avoid holes in the layout by moving that space to the outside instead
- Remember that less can sometimes be more – keep the screen as uncluttered as possible
- Use bullet lists to group information, condense content, and increase white space
- The body of text should take up 25-40% of the screen
- Favor graphics over text

### Color & Contrast

**Mayer's Signaling Principle:** People learn better with cues that highlight organization of essential material

- Use contrasting colors to direct attention and create distinction
- Use harmonious colors to unify concepts
- Repeat your color scheme throughout to create consistency
- Use only 2-3 different colors
- **60-30-10 rule**: 60% of one color, 30% of another, and 10% of a third
- Use shades of the same color – brightly colored elements will be noticed first
- Avoid background colors or patterns that make it difficult to read the text
- Opt for lighter background colors unless the video will be projected onto a white screen
- Use complimentary color schemes – opposites, or members of the same color wheel family
- Consider color vision deficiency: Never use color alone to convey meaning
- Incorporate plenty of white space
- Leverage different shapes, varying sizes, and opposing values (light vs. dark) for added contrast

### Typography & Text

**Mayer's Redundancy Principle:** People learn better from graphics and narration or narration and text, than from all three combined

- Size of the body text should be at least 14-16px (pixels)
- Use text size for hierarchy and contrast (for example: 14px body, 24px headings, 49px title)
- Consider the meaning that font choices imply about content
- Keep simplicity in mind – pick easy to read fonts
- Use font types from the same family (keep the palette limited)
- Keep paragraphs and sentences short
- Allow for ample white space between elements (i.e. paragraphs and graphics)

### Images

**Mayer's Image Principle:** People don't necessarily benefit from the speaker's image being added to a presentation

**Mayer's Multimedia Principle:** People learn better from words paired with pictures than from words alone

**Mayer's Modality Principle:** People learn better from graphics with narrations than from graphics with on-screen text

- Use high quality images
- Stick to a similar palette for all images (color schemes, environments, lighting, etc.)
- Use stock photography, illustrations, or icons as appropriate to help make sense of content
- Use charts and graphs to explain complex relationships or reveal patterns and associations
- Consider using infographics to convey large amounts of information

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- Consider pictographs or simple line drawings to explain steps and procedures
- Use full-screen images for greater impact
- Only use images that are relevant to the content (limit decoration)
- Use a consistent image style (photos, illustrations, icons, etc.)

## Timing & Emphasis

**Mayer's Signaling Principle:** People learn better with cues that highlight organization of essential material

**Mayer's Temporal Contiguity Principle:** People learn better when corresponding words and pictures are presented simultaneously

- Synchronize related visual and auditory material to avoid splitting attention
- Use movement to emphasize where a viewer's attention should be
- Use positioning to highlight important elements (see rule of thirds under "screen layout")
- Surround important elements with white space to create emphasis
- Slightly modify repeated elements to make meaningful differences stand out
- Use visual cues like arrows and dashed lines to show viewers where to look
- Use recurring markers to direct the learning process (i.e. symbols, colors, shapes, headings, etc.)
- Bring elements into view individually when building a point visually or propelling a point forward
- Maintain a steady pace with no more than 20/30 seconds per slide (including all slide animation)

## Other Considerations

- Contemplate utilizing templates to optimize production efficiency and establish consistency and to help viewers quickly identify where to look/how things work
- Use storyboards and scripts to organize flow and ensure alignment with your overall intent
- **Don't be afraid to break the rules!** Some of the best design innovations come from thoughtful and intentional deviations from industry standards and best practices
- **Mayer's Other Principles**
  - **Segmenting:** People learn better when multimedia lessons are presented in segments or chunks rather than as one continuous piece
  - **Pre-training:** People learn better when they understand the main concepts prior to a lesson
  - **Voice:** People learn better from a human voice than from a machine or "foreign" accented voice
  - **Personalization:** People learn better from conversational styles of narration than from formal styles

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