

Activating learning through visual presentations



Presentations incorporating visual elements are an important tool for engaging students and activating learning. Visual messages are potentially more powerful than verbal or text-based communications.

You may choose to display visual presentations on screen within lectures, or have them transmitted to off-campus students via Blackboard Collaborate and/or video-link. This often requires the production of PowerPoint-like presentations. In the design of each slide think about your students' learning and ask whether the slide aims to transmit information, explain a concept, stimulate thinking, motivate interest, build authenticity or stimulate an action.

Using dot points

Research is clear that dot points alone do not help an audience to recall a presentation. The addition of visuals, in a variety of forms, can evoke ideas and concepts that can add meaning to the presentation's narrative. If dot points are necessary to frame a presentation, keep them to a minimum and use them for key points only.

Using visuals

Visual images can include pictures, sketches, charts, graphs, maps, timelines, and flowcharts. They can be an effective way to stimulate recall of the presentation. Images can clarify and potentially help an audience to understand the issues, concepts or problems presented. Images can provide illustrations or metaphors for concepts, they can highlight practical problems and processes, and summarise detailed information. Keep images simple, uncluttered and memorable. See also <http://www.danroam.com/> for ideas on using images.

Images can be self-created or sourced from photo repositories such as Google Images <http://www.google.com.au/imghp> and Flickr <http://www.flickr.com/>. Always check copyright (see [SCU Library](#)).

Using animations

Animations can significantly enhance the effective delivery of a content-heavy subject, such as anatomy or chemistry. Instead of giving a slide that is overly dense or crowded with information, consider presenting a slide that slowly becomes overlaid with different sections. For example, think about how you might visually demonstrate the layers of the skin or the function of a cell. Animations can 'unlock' the complexity of a mathematical calculation by displaying the steps in a calculation. Most presentation software have an animation function.

By using the visual animations in a measured fashion and referring back to a base slide which has all the information, student engagement is maximised. Be careful to not go too fast or make the slide too complex; rather, use the animations to depict the developing stages of the topic.

Using video and audio clips

Visual media can bring real-life experiences and applications into a presentation, keeping students engaged with the topic and providing breaks in delivery. Video clips can be self-created or accessed from repositories such as YouTube. Always check copyright (see SCU Library). In general it is better to provide a link, rather than embed video and audio clips which results in larger files and potential problems for students with downloading.

Useful information on how to insert a YouTube video into a presentation is available from <http://www.youtube.com/watch?v=HmjUx2YDyc>.

At-a-glance

Visual messages are potentially more powerful than verbal or text-based communications.

Using electronic handwriting

Handwritten annotations or electronic handwriting using tablet computing can personalise an explanation and bring steps to life for students. When captured via lecture capture or Blackboard Collaborate recordings or video link, electronic handwriting has been shown to be particularly useful for teaching quantitative concepts (Galligan, McDonald, Loch & Taylor, 2010). To ensure success handwriting must be clear and time allowed for set up and practice before implementation.

Practicalities of visual presentations	
Type of presentation	Details
Images: good quality, non-clichéd	Images should convey an idea or concept boldly and simply Clichéd images fail to engage visually
Text: apply the 6/6 rule	Maximum 6 dot points per page Maximum 6 words per dot point Avoids slide after slide of dot points, forces you to identify key points, and ensures you expand on, rather than read, your slides.
Font: sans serif e.g. Arial, Helvetica	e.g. Arial, Helvetica, Geneva as it is easier to read on screen
Size: min 36pt titles, 24pt text	These sizes encourage the 6/6 rule and ensure visibility from a distance and/or via videolink
Accents: be sparing ; avoid using only CAPITALS	Too great a MIX OF CAPITALS, fonts, bold , <i>italics</i> and underline results in loss of impact for your key point. Rely on the 6/6 rule. Text in all capitals is more difficult to read than lower case
Colour: dark text on light background	Too much colour detracts from key points and can be difficult to read via videolink. Dark text on light background (not white) works well
Remember a presentation is a support to you, not the other way around	

The last word

Avoid reading your slides out. Sometimes you may want to emphasise a point but reading slides creates cognitive load, where a student is bombarded by information from two or more sources (eyes and ears) and ends up taking in very little from either.

Resources

Galligan, L., McDonald, C., Loch, B. & Taylor, J. (2010). The use of tablet and related technologies in mathematics teaching. *Australian Senior Mathematics Journal* 24(1), 25–38. Available from http://works.bepress.com/janet_taylor/93

LearnTel Pty Ltd (2006). *Effective Videoconference Teaching: Trainer's Manual*. Sydney, NSW: LearnTel Pty Ltd.