

### Sensory Service (Vision Impairment)

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# Accessible PowerPoint Presentations

If using PowerPoint please use a high-contrast colour scheme easily visible from the back of a large room. A white text on a dark background or dark text on an off-white background provides best contrast.

It is not possible to define a particular best colour combination that will optimise the legibility of your projected text for various reasons, including the fact that everyone’s level of sight is different. Please ensure you do not have a background that is multi-coloured. Do not use background images as they make text very difficult to read.

### Designing your presentation slides

This section looks at the ideal:

* Font size and quantity of text on a single slide
* Font type
* Colour and Brightness Contrast
* Way to use figures and graphs
* Animation
* Narrating slides
* Supporting handouts

### Font size and amount of text on each slide

It is good practice to have only a few lines of text, or bullet points, on a slide, ideally no more than five to seven and only about five or six words per line, justified left. There must be enough space between lines to prevent ‘crowding’ effects during reading.

Text must be large enough to be read by most students with low vision in the front of the audience and by people with normal vision in the back of the hall.

It is best to have no more than six lines of text with a line spacing of 1.5 on the slide, having allowed for a one inch margin on all four sides for headers, footers etc. This can be achieved with character size of 48 point. We recommend this size unless more space is needed for long words, but never using less than 32 point.

It is helpful to use mixed upper and lower case letters, these are easier for low vision participants rather than all capitals.

### Font type

Please use sans serif font types such as Helvetica, Arial and Verdana rather than font types like ‘Times New Roman’, because students with low vision have difficulty with reading text in font types with serifs.

Avoid the use of italic font style because this style is also difficult to read for and even hampers normal vision reading.

Try not to use more than one font type per slide. If you want some text to pop out, use a larger font size, or use bold style, for that text, to attract attention.

If information on the slide is only important for you as presenter, such as a header with the title of the presentation and the page number, keep this as small as possible to save space for the information that is important for the audience.

### Colour and Brightness Contrast

For some, colour contrast can improve see-ability, but different medical causes of low vision respond to different colours being contrasted.

There are two types of contrast - brightness and colour. The highest brightness contrast is between black and white.

Be aware that contrasting full colours have no brightness contrast and thus cannot be discriminated by students with colour deficiency. So the main contrast in a slide must come from brightness and not from colour.

Many people suffer from glare, so try to apply dark background colours (low brightness) and use bright colours (high brightness) for the text to assist students with low vision. A white font on a deep blue background is a very good combination.

As previously stated, text with high colour contrast without brightness contrast cannot be read by students with colour deficiency. In particular, they have difficulty with red-green perception. These students have difficulty in reading green text on a red background. So when it is important to have a red background, it would be helpful to use dark red and apply white fonts or when a green background is required, use a light green background and a black font.

Be aware that many people with colour deficiency are less sensitive to red. As such, it is best not to use a black font on a red background or red text on a black background.

### Figures and graphs

If you have figures and graphs, keep them as simple as possible. Use brightness and contrasting colours in the same way as with text, as above.

Use sans serif font types for the text in the figures and again never use more than one font type per slide and avoid the use of italic font style.

### Animation

Please keep animation to a minimum as this can be very confusing for people with low vision.

### Narrating slides

It is helpful if all text presented on slides is read aloud by the presenter because for some students with low vision sitting in the front of the audience, text and figures will still be too small and students with normal sight, in the rear of a large audience, may also have the same problem.

Figures and graphs should be explained because students with low vision may have difficulty in orientating themselves to find where to start reading or viewing.

The presenter should explicitly mention the region of interest in the slide.

Although pointing with a small light arrow to the region of interest is helpful for fully sighted people, it is not sufficient for those with low vision or a restricted viewing field, since it cannot be identified quickly.

It is helpful to explain the slide in an expressive manner so that the audience understands where to look. For example:

‘On the screen you see a diagram with four blocks. The block in the lower right corner …’

Be aware that some parts of a figure, for example, the key of a bar graph are always difficult to interpret, even for people with normal vision.

### Handouts

Please always distribute before the presentation, especially to participants with low vision, copies of your slides and in a size that is accessible for them, possibly full page copies of each slide.

Be aware that colour is lost in grey tone prints. This is another reason to use brightness contrast as the basic technique to contrast text and figures from the background.

## Access for learners who are blind

Have a digital copy of the slides available in .ppt and .pdf so that students with blindness or profound vision loss may follow along on their devices and use their own accessibility settings.

If you display it, say it. Imagine that you were hearing your own presentation on the radio, would it make sense and would you fully understand all the information that was being put across?

### Alt text on graphics

For any pictures, graphs, or other media, add alt text by going to image properties, and then alt text. Alt text is what screen readers use to describe pictures, and it shows up when the user hovers over the image with their mouse.

### Alt text vs image description

Alt text is a one or two sentence description, while image description may be much longer. Here is an example:

Alt text- George Mason with the Bill of Rights

Image description- George Mason standing, wearing a long coat, and holding the finished copy of the Bill of Rights. He is leaning on a table with paper and a quill with ink on it.

### Use the provided templates

The provided templates in PowerPoint are pre-approved for screen readers and other accessibility devices, and can be easily navigated. There is no need to create a custom template when there are already many to choose from, as these are perfect the way they are.

### Create screen reader compatible custom templates

One of the dangers with creating custom templates is that screen readers may jump around or not acknowledge critical information. If a custom template must be used, create the custom slide in PowerPoint, take a screenshot, and then insert the image into one of the built-in templates. Do not forget to include alt text and image descriptions.

### Provide an audio transcript

A lot of these tips have been on making PowerPoint accessible for low vision and blindness, but it's important to recognize that there are other impairments to consider when creating presentations. Having an audio transcript allows people with a hearing impairment to be able to follow along, and others can also benefit from having access to the transcripts.

### Check external content for accessibility

When linking to external content such as websites or videos, check to see if it is accessible. Are there strobe or flashing lights? Is the website compatible with a screen reader? Are there subtitles or transcripts? Is there an audio description? Asking these questions when creating the presentation will avoid issues with inaccessibility later.

### Use the accessibility checker

PowerPoint has an accessibility checker built in that can be used to verify that the presentation is accessible to people with disabilities. If an issue is found, PowerPoint will tell the user how to fix it, typically in less than a minute.

[Make your PowerPoint presentations accessible to people with disabilities - Office Support (microsoft.com)](https://support.microsoft.com/en-gb/office/make-your-powerpoint-presentations-accessible-to-people-with-disabilities-6f7772b2-2f33-4bd2-8ca7-dae3b2b3ef25)