australasian cognitive neuroscience society

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Australasian Cognitive Neuroscience Society

Recommendations for Giving Accessible Presentations

Preamble: One in five people in Australia have some form of disability. The likelihood of living with a disability increases with age. 50% of people aged 65 years and over live with a disability, compared to 12.5% of people aged under 65 years. Of the range of disabilities, vision and hearing impairment are the main impediments to understanding oral presentations; 55% of Australians have at least one long-term vision disorder, and 16% are affected by hearing loss.

Scope: In this document, we recommend simple guidelines for ACNS members to follow to ensure their oral and poster presentations are accessible to all members of an audience. We focus on visual and hearing impairment, but the spirit of the document is to improve presentation style to be as inclusive as possible for people with any accessibility issues.

Delivery method (in-person/online/hybrid) should be considered when reading these guidelines. Some will be more appropriate for certain delivery methods than others. The guiding philosophy is to make all presentations accessible by default, rather than asking individuals with issues to self-identify and request accommodations be made.

Advice for Session Chairs: Keep in mind that not only audience members may need assistance; presenters may also have accessibility issues. Prior to the session, confirm with the speakers if they require assistance loading their presentations. It is good practice to load each speaker's slides prior to the beginning of each presentation within a session.

Please refer to the Guidelines for Session Chairs document found on the ACNS website for guidance on how to facilitate an accessible oral presentation.

TL;DR Summary:

1. Always use the microphone when presenting or responding to questions
2. Don't use light text on dark background on slides
3. Check visibility of figures for colour-blindness accessibility.

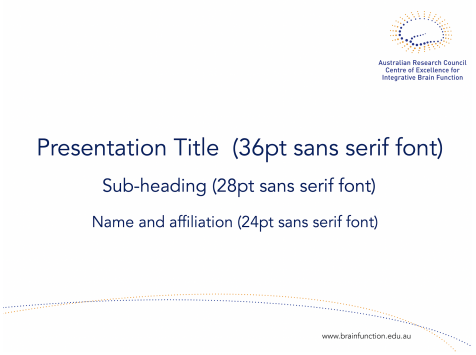
Guidelines for Visual Accessibility

Not all people with vision impairment are blind. A person with vision impairment (visual acuity less than 6/12-6/60) cannot read the letters at 6 metres on a vision chart that a person with normal vision can read at 12 metres. A person with blindness (visual acuity less than 6/60) cannot read the letters at 6 metres that a person with normal vision can read at 60 metres. In addition to visual acuity issues, some people have varying levels of light sensitivity, which can change with the time of day, and others have attentional issues that affect the way information is obtained visually.

Effective use of presentation slides is the best way to improve visual accessibility.

Slide preparation guidelines:

- Use sans serif font (e.g., Arial, Calibri)
- Use large font size – at least 24 point
- Use dark text on light coloured background
- Avoid placing watermarks or images behind text
- If possible, place text descriptions for images/pictures/graphics on the slide, or provide verbal descriptions of images and videos
- Be open to providing copies of slides to those who request them

<table>
<tr><th>Good</th><th>Not Good</th></tr>
<tr><td> 
</td><td> 
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<tr><td> 
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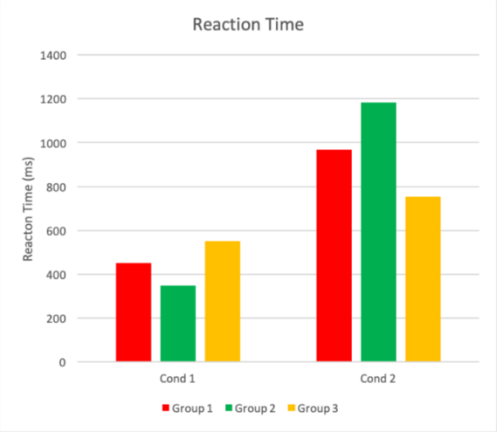
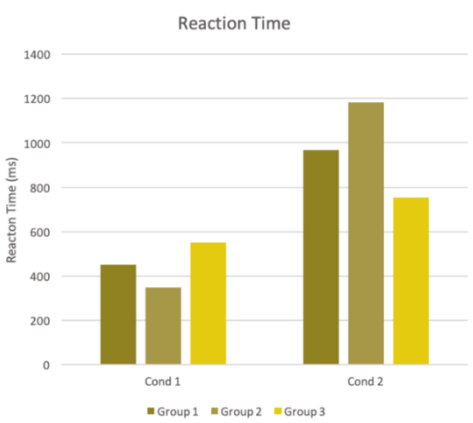
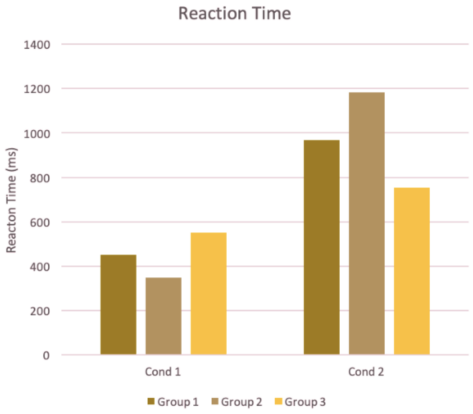
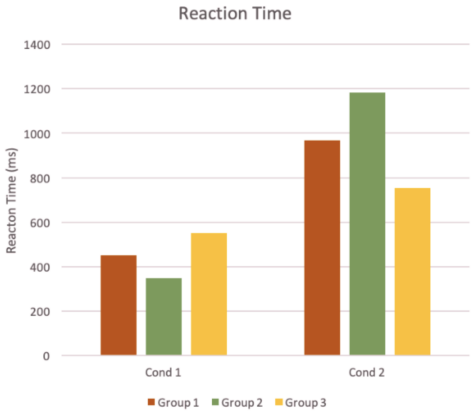
</td></tr>
<tr><td>● Large, sans serif font
● Generous use of white space
● No images/watermarks under text</td><td>● Dark background, light text
● Cramped style, little white space or differentiation between lines
● Watermark under text</td></tr>
</table>

Colour-blindness

Around 8% of the male population, and 0.5% of the female population have some form of colour-blindness. The two most common types of colour-blindness are deuteranomaly and deuteranopia, which are commonly referred to as ‘red-weak’ and ‘green-weak’ or ‘red-green colour-blindness’. Good graphic design avoids using colour-coding or colour contrasts alone to express information. This not only helps colour-blind people, but also provides additional cues to normally-sighted people to discriminate between information presented visually.

Original figure	Red-blind/Protanopia
	
Green-blind/Deuteranopia	**Green-weak/Deuteranomaly**
	

Slide/figure preparation guidelines:

- Choose a colour scheme that can be identified by everyone. You can check the visibility of your colour scheme at http://www.color-blindness.com/coblis-color-blindness-simulator/
- Don’t focus only on colour to differentiate information: use shape, position, pattern fills and line weights as well.
- Avoid colour combinations like red/green, green/brown, green/blue, blue/grey, blue/purple, green/grey and green/black
- Consider making the figure monochrome if possible
- Use highly contrasting colours. The majority of colour blind people can perceive high contrast.

Guidelines for Hearing Accessibility

Hearing loss in adults is defined as mild (> 25dB and < 45dB), moderate (> 45dB and < 65dB) and severe (> 65dB). Most speech sounds are in the 30-65 dB range, and some sounds (nasal, stops) have lower sound levels (30-40 dB) than others. Most adults with hearing impairment (85%) do not have assistive listening devices. Note however that assistive devices do not provide hearing comparable to natural intact hearing, as they amplify all sounds, regardless of source. In addition to hearing loss, many people have additional problems with extracting information from auditory sources, particularly in directing auditory attention to changing sources in the environment.

The best way to improve hearing accessibility is to use the technology provided at the venue

- Always use the microphones provided. Do not assume that because no one demurred when you asked “Does everyone hear me”, that everyone actually can. Speaking loudly or projecting your voice can not replace the microphone
- Using the microphone also ensures that additional assistive devices, such as induction loops, work effectively
- Encourage all questions from the audience to be delivered via a microphone. If that is not possible, repeat the question so all can hear it
- Some people who use hearing aids or cochlear implants also benefit from support from additional devices which transmit sound directly to the person’s aids or implants (FM, Bluetooth or infra-red systems). It is usually as simple as the speaker wearing a small device around their neck while speaking, but the person will be able to provide instructions on its use. Just be aware that while wearing the device, everything you say will be transmitted directly to the person, so remember to remove it before having confidential discussions!
- Speak at a normal rate, facing the audience. Keep background noise (e.g., chatter) to a minimum if possible
- Be open to providing copies of slides to those who request them

References & Resources

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Version Control

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Based on material originally developed by: Gender, Equity and Diversity Committee of the ARC Centre of Excellence for Integrative Brain Function (2018). Document can be freely shared, please acknowledge this work if adapting it for other purposes.