Guidelines for inclusive learning resources

# 1.0 Requirements for inclusive learning resources

These guidelines are intended to provide basic inclusive principles to consider when developing your learning materials. The principles are based upon good practice from sources including the British Dyslexia Association (BDA), Royal National Institute of Blind People (RNIB) and Jisc. The aim of these recommendations is to improve access for all and to enhance student engagement with learning resources. These guidelines apply to all university staff developing resources.

Learners have a wide diversity of needs and preferences. Creating materials that allow for customisation and providing information in a variety of formats will improve engagement for all. Learners can experience a variety of issues either permanently or temporarily affecting one or more of their capacities. This includes visual, auditory, cognitive, mobility, social and language abilities and will impact on how they can interact with learning resources. We cannot assume that all learners will access content in the same way, many will need to use additional assistive devices and software to enhance or transform content into a format they can access. For example screen reading software will allow for written text to be read aloud for those who need assistance with seeing or reading written sources. Visual and audio resources with a text alternative can allow for content to be followed by those who cannot access these either due to a disability or the environment. It is therefore important that content is created and provided in a manner which allows for multiple modes of access. Following these recommendations will also help to avoid compatibility issues across mobile devices. Embedding these principles into your resource provision will increase the ability for customisation, access and compatibility and reduce the need for learners to ask for specific adjustments.

New [Accessibility Regulations](http://www.legislation.gov.uk/uksi/2018/952/contents/made) set out a standard for resources to be **operable, understandable,** and **perceivable** by everyone.Following the recommendations in these guidelines will assist in creating resources that will meet standards. Each section will include information on how to **check accessibility** as you develop resources with the tools (Office 365, Adobe) available to you. There are also **accessibility tips** on useful features within these tools for both staff and students.

# 2.0 Principles for inclusive provision

When planning the use of learning resources in teaching a holistic approach needs to be taken. Following the Universal Design for Learning (UDL) principles for inclusivity can help develop an approach that considers the overall context of the learning experience. UDL principles are about offering resources through multiple means of representation to suit different learners. In addition to enabling multiple ways of expressing learning and appropriately engaging learners.

# 3.0 Recommendations for inclusive learning resources

Each recommendation is provided with a key of the inclusivity impact upon implementation:

* Visual (V).
* Auditory (A).
* Cognitive (C).
* Mobility (M).
* Social and Language (SL).

## 3.1 Text-based resources

Aim for good readability of learning resources by following the recommendations below.

### 3.1.1 Typeface

* Produce documents in clear print minimum size 12pt or 14pt. (V, C).
* Use a linear sans serif font (e.g. Arial, Verdana and Tahoma) as these are easier to read. (V, C, SL).
* For extra clarity the Verdana font has different forms for capital I, lowercase l and digit 1. (V, C, SL).
* Using normal weight text and bold for emphasis will improve legibility. Avoid light weight text. (V, C).
* Use sentence case and avoid block capitals, italicised, underlined text and highly stylised typefaces. It is difficult to recognise word shapes if the letters are all the same height as in capitalised text or set at an angle as with italicised text. Underlining text cuts through letter descenders making it difficult to recognise the shape of the letters and words. (V, C).

### 3.1.2 Layout

* Provide a logical order by structuring your Word documents using the inbuilt headings and content lists. It is essential to construct Microsoft Word documents using the predefined headings; Heading 1, Heading 2 and in the correct order. This will allow for screen reading software to read the document in a logical order and identify headings. Word documents structured with appropriate headings can be saved as a ‘tagged PDF’ to convert into readable Adobe Acrobat format. (V, A, C, M).
* Use 1.5 or 2.0 double spacing between lines. (V, C, SL).
* Left align text as the irregular right hand margin makes orientation in the text easier. Justified text is difficult to read due to the uneven starts to sentences and spaces between words. Also avoid centre and right alignment. (V,C).
* Add semi-colons, commas, or full stops after bullet points to separate each point. (V, C).
* It is preferable to use ordered or numbered lists. (C, SL).
* Highlight key information, words or phrases. To indicate emphasis use bold. (C).
* Information in tables will need headings applied to donate the column and row headings. Ensure that text and numbers have sufficient white space to not touch any border lines. Complex tables can also be labelled and marked-up with a logical reading order in Adobe Acrobat DC. (V, C)

**Check accessibility of Word and PDF documents**

Microsoft Word documents can be inspected for accessibility issues using the inbuilt **Check** **Accessibility** feature. Adobe Acrobat DC also has an Accessibility Checker and the Make Accessible action wizard to identify potential problems and provide steps to address them.

**Accessibility Tip**

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Adobe Acrobat DC** can further tag documents into a logical reading order this works well with complex content especially large tables.

Adobe Acrobat DC also has various tools for viewing PDF documents including zoom reflow, line focus, read-aloud and auto scrolling.

### 3.1.3 Language

* Use simple and concise language and omit irrelevant words to avoid confusion. (C, SL).
* Use clear instructions and procedures, e.g. short sentences, one question at a time. (C, SL).
* Ensure web links are clearly signed with meaningful descriptions of the link content. Avoid using ‘click here’. (V, A).

### 3.1.4 Colour

* Don’t use colour as the only means to convey information. (V).
* Ensure good contrast between background and text. (V, C).
* Some find white backgrounds too harsh, pale background colours are generally safe to use. (V,C).

Check accessibility of colour schemes  
A colour-contrast analyser can check sufficient contrast between background and text colours. A ratio of at least 3:1 is required.

**Accessibility Tip**



The **Microsoft Immersive Reader** within Word (Learning Tools), OneNote and Teams can customise how text content is displayed and read-aloud. The Immersive Reader also has features to identify components of speech and translate into different languages.

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**Office Lens** can scan paper documents and provide character recognition for text. You can use Office lens to send content to the Immersive Reader.

## 3.2 Presentation resources

In addition to the above principles when developing resources for Microsoft PowerPoint presentations the following are recommended:

* Keep text to the essential and use text to highlight not to narrate. (V, C, SL).
* Use a font size of at least 24pt. (V, C, SL).
* Provide visual consistency with presentation style throughout. (V, C, SL).
* Avoid the use of highly detailed diagrams or charts in presentations as these will be difficult to view. (A, V, C, SL).
* Don’t use busy background images behind text content (V)
* Do not change text direction just for visual effect. (V, C, SL).
* Do not use unnecessary animation effects. (V, C, SL).
* Use unique heading titles on each slide. (V, C).
* Ensure diagrams such as SmartArt Graphics have a logical reading order. (V, C).

Check accessibility of PowerPoint presentations  
Microsoft PowerPoint presentations can be inspected for potential accessibility issues with the inbuilt **Check Accessibility** feature.

**Accessibility Tip**

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**Microsoft Sway** can be used to develop online presentations that are viewable in an Accessibility Mode.

## 3.3 Visual media resources

It is advisable to provide multiple ways of presenting information within your resources. When adding different media types these basic principles will increase access:

* **Graphics** or photographs used as a learning resource should have the purpose clearly described in the surrounding text. A short meaningful description should be provided on all essential images; all software has the facility to do this, search for ‘alternative text’ in the software help. (V, A, C).
* Do not save resources containing text in a graphic based file format e.g. information graphics or posters as the text can’t always be adjusted for readability or read by screen readers. Provide text information separately if necessary. (V, C).
* **Animations** in learning resources are recommended to demonstrate a process or concept only. Do not use superfluous animations just for visual effect. (V, C, A, SL).
* Use **lecture capture** to record your taught sessions. This will provide an alternative resource to the lecture materials. Think about planning your recorded presentations to include a meaningful description of key visuals in your presentation. Automated captions can be manually imported into your recordings. The automated captions will have varying levels of accuracy and can be edited. (V, C, A, SL).
* Avoid automatic start to any audio or media content.
* Include podcasts or further audio descriptions of key written and visual resources. (A, V, C).

## 3.4 Provision of learning resources

* **Provide resources in advance** of scheduled learning activity to give learners time to read and comprehend information. (V, A, C, M, SL).
* **Provide priority learning materials in multiple formats** allowing for alternative means for learners to access and engage. It is advisable to provide an alternative way of explaining important concepts and ideas. For example, a process could be explained through an animation or visual diagram as well as a text description of the process. (V, A, C, M, SL).
* Upload resources in original **editable formats**. Learners experiencing difficulties can customise the resources to their own needs. For example upload a PowerPoint as .pptx and Word as .docx. (V, A, C, M, SL).

# 4.0 Further Information

**Educator resources:**

* [British Dyslexia Association educator resources](http://www.bdadyslexia.org.uk/educator)
* [Royal National Institute of Blind People advice for educational professionals](http://www.rnib.org.uk/services-we-offer-advice-professionals/education-professionals)
* [UDL - Principles for inclusivity](https://blogs.tees.ac.uk/lteonline/principles-of-inclusivity/)
* [Jisc - UK Law on web accessibility practical resources and advice](https://www.jisc.ac.uk/accessibility)

**Accessibility Checks:**

* [The Microsoft Accessibility Checker](https://support.office.com/en-us/article/improve-accessibility-with-the-accessibility-checker-a16f6de0-2f39-4a2b-8bd8-5ad801426c7f)
* [Government technical standard (WCAG 2.1) Checklist](https://alphagov.github.io/wcag-primer/checklist.html#checklist)
* [WebAIM contrast checker](https://webaim.org/resources/contrastchecker/)

Further information on creating accessible resources is available on the Blackboard Help tab and LTE online.

Guidance updated October 2019.

Please contact [lte@tees.ac.uk](mailto:lte@tees.ac.uk) for further advice.