# Guideline universal design

Sheet 12: PDF and Word files



### What?

Een PDF (Portable Document format) is a file format for formatted documents with text and image, whereby the layout always remains intact.

(Microsoft) **Word** is one of the most used word processors in the world. A Word file is the most accessible format for text files.

## Why and for whom? 7

A PDF is a very popular file format for various reasons. The layout always remains intact, a PDF remains legible on various devices (tablet, smartphone, laptop, etc.) and its layout is easy. However, the accessibility of PDF files is not always evident. Use this file format only if there are good reasons and apply the tips & tricks below.

The Word format is the most accessible format for text files. By making study material digitally available in Word, students can, among other things, edit the course text themselves (font, font size, colors, contrast, etc.), use reading software smoothly, convert the course to braille (via conversion centers or a Braille display) or turn pages around with a click.

## Tips & Tricks 1, 2, 3, 4, 5, 6, 7

#### PDF files

The source of a PDF is never a PDF itself but a document in a different format (e.g. Word, PowerPoint, Excel, Indesign). The accessibility of a PDF file depends on two factors: the accessibility of the source file and the software with which the source file was converted to PDF. Making an inaccessible file accessible is often a lot of work. It is therefore important to pay attention to accessibility from the start of any new document:

- Conversion to PDF | For conversion to PDF, use Microsoft Office or Adobe Acrobat pro. In this case, accessibility is best guaranteed during the conversion. When converting a document to a PDF file, check the box "labels for document structure for accessibility".
   Check accessibility | Check the accessibility using the following methods: an
- inspection in Adobe Reader, converting the PDF to a text file, an accessibility check in Adobe Acrobat Pro or testing with a screen reader.
  - More information about the different ways to check a PDF for accessibility is available here (Dutch).
- OCR function | Remember that some documents are totally inaccessible to the blind.

  Scanned documents or photos of texts that do not have OCR (Optical Character Recognition) are not readable by screen readers because no text is recognized.

  Adobe Acrobat Pro has a built-in OCR function.
- ☐ Sheet 11 | See also sheet 11: PowerPoint and the guidelines below for Word files.

#### Word files

#### Settings, structure and lay-out

- Layout | Make sure that the layout supports the reading direction (e.g. from left to right).
- Format styles | Use formatting styles in Word. This promotes consistency and structure and makes it possible to navigate the text for students who use reading software.
- ☐ Check accessibility | Check the accessibility via file > check> check accessibility.

	Navigation   Enable navigation in online texts with just the keyboard or keyboard
	shortcuts.
	Allow editing   Allow editing so that students can adapt to their own needs.
	<b>References</b>   Add references as footnotes or endnotes so that they do not interrupt
	the flow of the text. Headers and footers can then again be in a slightly smaller font
	(e.g. point size 8) but in the same font as the main text.
Text	
	Language   Use the simplest language that is suitable for the document.
	Font   Use a sans serif font (e.g. Arial, Calibri, Helvetica) with minimum font size 12
	and use a line spacing of 1.5.
	Align   Align the text on the left, this increases legibility.
	Abbreviations   Write abbreviations and acronyms in full at the first use.
	Lists   Use the "bullets and numbering" function for lists.
	Language file   Determine the primary natural language of your document and mark
	changes to another language in the text.
	Highlight text   Accentuate elements by using bold text. Do not use capital letters,
	italics or underlined text. Avoid using only color.
	Contrast   Make sure that the color combinations of the text and background offer a
	very good contrast.
	Text equivalents   Offer non-text equivalents, such as images, videos, and pre-
	recorded audio of your text.
	Data tables   Give a header to the rows and columns of textual data tables and
	describe their contents in a summary.
Non-te	extual elements
	Relevance   Ensure that the illustration or table is consistent with, and relevant to,
	the content.
	Quantity   Use a maximum of one illustration or table per page.
	Proximity   Place the visual material as close as possible to the accompanying text,
	announce the illustration or table in the text and orientate on the content.

Place   Do not interrupt the text, but place the figure next to, below or above the	
text.	
☐ Caption and title   Provide each figure or table with a comprehensive caption and /	
or appropriate title.	
☐ Clear   Keep the illustrations simple, well-arranged and of sufficient quality.	
☐ <b>Tables</b>   Make a table with the appropriate table function (not via tab keys or spaces)	
and avoid merged cells in a table.	
☐ <b>Numbering</b>   Provide the pages, figures and images with continuous numbering.	
☐ <b>Columns</b>   Create multiple columns with the appropriate column function.	
Know more?	
☐ View the <u>AnySurfer contribution on accessible Word documents and the</u>	
AnySurfer contribution on accessible PDF files (Dutch but website also available in	
English).	
☐ Read here 10 tips for accessible information for people with a functional disability	
(Dutch).	
☐ KU Leuven made an <u>overview concerning the accessibility of PDF files</u> (Dutch).	
In practice	
"We also ask teachers to put word documents and not just PDFs online. This allows	
students to adjust it to their own preferences, such as the size of the letters. This makes it	
accessible and learnable for everyone."	
"We prepare a standard document, a template that can be used."	
"We have a manual, but there are so many documents that few people find them. For	
example, you can give a session in the traning of teachers to deal with this problem. We	
have also made a small fact sheet to respond to that overload. It is a small A5."	

## References

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- <sup>2</sup> Bernard, M. L., Chaparro, B. S., Mills, M. M., & Halcomb, C. G. (2003). Comparing the effects of text size and format on the readability of computer-displayed Times New Roman and Arial text. *International Journal of Human Computer Studies*, *59*(6), 823–835.
- <sup>3</sup> Van Petegem, P. (2009). *Praktijkboek activerend hoger onderwijs*. Leuven: Lannoo Campus.
- <sup>4</sup> Rello, L., & Baeza-Yates, R. (2017). How to present more readable text for people with dyslexia. *Universal Access in the Information Society*, *16*(1), 29–49.
- <sup>5</sup> Bernard, M, Lida, B, Riley, S, Hackler, T., & Janzen, K. (2002). A Comparison of Popular Online Fonts: Which Size and Type is Best? *Usability News*, *4*(1).
- <sup>6</sup> Sheedy, J. E., Subbaram, M. V, Zimmerman, A. B., & Hayes, J. R. (2005). Text Legibility and the Letter Superiority Effect. *Human Factors*, *47*(4), 797–815.
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