
Creating clear print and large print documents

Guidance from UKAAF

UK Association for Accessible Formats (UKAAF)

Because format quality matters

Why format quality matters

"When organisations send me information in formats that I can read myself it allows me to be independent, feel informed and appreciated - just like every other customer."

End-user

"Producing consistently high quality accessible formats helps us to maintain our reputation, to gain new customers and to retain existing ones."

Transcription agency

"We are committed to ensuring that our customers with print disabilities receive the same information, of the same quality, as everyone else."

Service provider

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Who is this guidance for?

This guidance from the UK Association for Accessible Formats (UKAAF) is primarily aimed at anyone producing clear print or large print documents. It will be particularly useful for people aiming to create accessible printed materials, either for the general public (clear print) or specifically for people with low vision (large print).

The guidance includes:

- Minimum standards for clear and large print
- Guidelines for clear and large print
- Endnotes giving more detailed guidance and examples
- A glossary

Disclaimer

This guidance may include references to external websites, services or products for which UKAAF accepts no responsibility. This information is given without any representation or endorsement of those websites, services or products.

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Introduction

By obtaining these guidelines you are demonstrating your commitment to helping people with a print disability to read your materials if they find reading standard print materials difficult or impossible.

This guidance concentrates specifically on materials suitable for blind and partially sighted people - such as large print, audio, braille and electronic file formats. However, others with a print disability, for example with dyslexia or motor-difficulties, may also find such materials necessary.

The provision of accessible information is a key requirement of the Equality Act which service providers must follow, but good customer service and business practice includes communicating with your customers and staff in ways which meet their reading needs. By providing accessible format materials, you not only demonstrate your commitment to equality and inclusion, but also increase your reach and customer base. It therefore makes good business sense.

This guidance will help you and your organisation to incorporate good practice into your business and provide good quality accessible format materials in a timely and appropriate way.

About UKAAF

The UK Association for Accessible Formats (UKAAF) is the industry association whose mission is to set standards for accessible formats that meet end-user needs through:

- development, delivery and promotion of codes, standards, and best practice for the production and provision of accessible formats

- consultation and collaboration with transcribers, service providers and users of accessible formats.

Members of UKAAF include organisations and individuals with an interest in the provision of quality accessible formats, such as service providers, transcribers, educators, researchers, print services, publishers, and end-users.

Through its leadership and representation, standards-setting, and by fostering a spirit of cooperation between members, UKAAF ensures that the needs and requirements of end-users are understood by service providers and transcribers to help improve the quality of accessible formats.

Please see the section on "Where to get further help" towards the end of this document for more information about the benefits of being a member of UKAAF.

Definition of print disability

A print-disabled person is anyone for whom a visual, cognitive, or physical disability hinders the ability to read print. This includes all visual impairments, dyslexia, and any physical disabilities that prevent the handling of a physical copy of a print publication.

Source: Copyright Licensing Agency Print Disability Licensing Scheme, Guidelines for Licensees 2010.

Minimum standards for clear print and large print

As a minimum, UKAAF expects clear and large print materials to comply with the following standards.

Copyright

- Permission, or the legal right to produce the clear or large print version of the document has been confirmed

User needs and preferences

- Individual end user's requirements ascertained and met where possible, without compromising the integrity of the original information

Presentation

- Document has not been created by enlarging with a photocopier (other than exceptional cases)
- A4 paper used unless content or purpose dictates otherwise
- Minimum text size of 12 point for clear print, ideally 14 point
- Minimum text size of 16 point for large print, ideally minimum of 18 point
- Text such as page numbers, labels, superscripts is ideally the same size as the body text
- Legible typeface such as Arial
- No italics, underlining or large blocks of capital letters
- Adequate line spacing
- Adequate space between paragraphs
- Text is left aligned except in exceptional circumstances

- Text is horizontal
- Words and single pieces of information are not split onto two lines unless unavoidable
- Columns avoided or reduced in number if appropriate
- If columns are used, there is adequate space between them and possibly a vertical dividing line
- Good contrast between text and background
- No information conveyed solely through colour, images or diagrams
- No text overlapping images (other than exceptional cases)
- Paper is non-glossy
- Paper is of sufficient weight to avoid show-through

Identification and navigation of document

- Title and originator of the document should be at the beginning of the information
- Layout is clear and consistent
- Headings are clearly differentiated from text
- Appropriate use of page numbers
- Appropriate use of print page references (e.g. for educational material)
- Appropriate use of table of contents
- Appropriate use of headers and footers

Interpretation and adaptation

- Images and diagrams are presented in an accessible way
- Tables are presented in an accessible way

Accuracy

- Document is an accurate representation of the original
- Quality control measures in place (e.g. proofing, testing production equipment, regular servicing etc)

Finishing and packaging

- Appropriately bound
- Appropriately packaged
- Clearly labelled
- Cover is non-glossy
- Despatched in good time

Clear print and large print golden rules

These are simple rules you may wish to refer to when designing a document. They are a subset of the minimum standards, particularly relevant to design.

- 1** For clear print use a minimum type size of 12 point. For large print use a minimum type size of 16 point
- 2** Use a legible typeface
- 3** Avoid italics, underlining and large blocks of capital letters
- 4** Use adequate line spacing
- 5** Left align text
- 6** Keep text horizontal
- 7** Provide a good contrast between text and background
- 8** Avoid overlapping text and images
- 9** Use a clear and consistent layout
- 10** Use non-glossy paper

Detailed guidance on the production of clear and large print

These guidelines explain how to produce clear and large print documents. If you want to learn more about any of the guidance below refer to the corresponding note in the following section.

1. Ask the end user what they need

These guidelines give general guidance for the adaptation of materials into clear and large print; the ideal is to find out and apply the user's individual preference. If possible, always try to meet the user's needs [\[Note 1\]](#).

2. Do not enlarge text with a photocopier

It is **not** acceptable to enlarge a document to A3 on a photocopier. This produces documents that are unwieldy; difficult to read; any inaccessible design inherent in the original is not improved, and it degrades the quality of images and graphics. The information needs to be re-formatted to conform to these guidelines [\[Note 2\]](#).

3. Use an accessible typeface / font and appropriate paper

- 1 For clear print use 12 point text size minimum, though 14 point is recommended. For large print use 16 point minimum, though 18 point is recommended [\[Note 3.1\]](#).
- 2 Avoid italics, underlining, and blocks of capital letters because they make text difficult to read [\[Note 3.2\]](#).
- 3 Use a legible typeface. Arial is a good choice as it is legible and commonly available on computers, but some others are equally suitable [\[Note 3.3\]](#).

- 4 Do not use a smaller text size anywhere in the document. For example page numbers, footnotes, subscripts and superscripts, image captions and 'small print' should all be the same size as the body text. For example, scientific formulae or maths equations may need to be in a larger text size than the rest of the content so that subscripts and superscripts can be an appropriate text size. Headings may need to be in larger text to differentiate them from body text [\[Note 3.4\]](#).
 - 5 Ensure a well-defined contrast between text and background. Black on white offers the strongest contrast. For some people, different colour combinations or coloured paper can be easier and more comfortable to read [\[Note 3.5\]](#).
 - 6 Do not use colour alone to convey information, as some people cannot differentiate between different colours [\[Note 3.6\]](#)
 - 7 Use matt paper, as it is non-reflective and helps to eliminate glare from lights. It must be thick or opaque enough to prevent print showing through. 80 gsm is sometimes sufficient but not always. 100 gsm is usually suitable.
 - 8 In general, use A4 paper unless the content or purpose dictates otherwise [\[Note 3.8\]](#).
- 4. Label the document clearly**
- 1 Include on the front page who the document is from and a title giving the subject matter unless there is a good reason not to do so.
 - 2 Specify the text size on the cover (front or back) [\[Note 4.2\]](#).

5. Use a clear layout to aid navigation

- 1 Use a consistent layout [\[Note 5.1\]](#).
- 2 Left align text and headings unless exceptionally convention dictates otherwise [\[Note 5.2\]](#).
- 3 Clearly differentiate headings from body text, and differentiate different levels of heading. Bold text, larger text, and line spacing can all help to do this [\[see Note 5.19 for examples\]](#).
- 4 Do **not** place images to the left of text as the reader may not realise there is any text to the right of the image.
- 5 In general, avoid printing text over an image. If it is necessary, ensure good contrast and place on an area of plain background [\[Note 5.5\]](#).
- 6 Avoid single pieces of information splitting onto two lines, for example: names, telephone numbers, dates, postcodes, measurements and their units [\[Note 5.6\]](#).
- 7 Use a minimum of single line spacing to avoid cramped text [\[Note 5.7\]](#)
- 8 Avoid indenting text at the start of paragraphs, but **consider** using hanging indents in numbered or bulleted lists. Leave space between paragraphs [\[Note 5.8\]](#).
- 9 Keep text horizontal, including labels on diagrams, maps and other graphics.
- 10 Ensure linked items are connected visually. If there is a large amount of space between linked items (for example in contents lists or invoices) it is easy to lose the visual connection. For example, use a row of dots in contents lists, and show cell lines in tables to link the information.
- 11 Place page breaks at an appropriate place in the text, avoiding widows and orphans [\[Note 5.11\]](#).

- 12** Tables may become difficult to interpret if the text size is enlarged. It is usually easier if the full width of the table is available to the reader, so **consider** whether changing page orientation, using A3 paper, or printing on two facing pages may help. **Consider** whether reformatting would be helpful, for example changing column width or splitting the table into two. Repeat the heading row for any tables breaking over a page.
- 13** If enlarging the text size of a document which has been formatted with columns, **consider** whether you need to reduce the number of columns or get rid of columns altogether so that the line length and words per line are suitable [\[Note 5.13\]](#). If columns are considered appropriate, ensure the reader can easily distinguish between them by having an adequate space between them, and possibly a vertical dividing line, to avoid the user reading across columns rather than down the page.
- 14** Have adequate margins, especially from the spine in a bound document. Some people need an area of plain paper around the text to separate the document from its surroundings. Others use Low Vision Aids (LVAs) such as a handheld or video magnifier (CCTV) to further magnify text, and need to be able to lay the document flat.
- 15** Include page numbers in documents of more than two pages to aid navigation. Do this even if the original document does not have page numbers, unless there is a good reason not to have them.
- 16** **Consider** including page numbers from the original text as well as the new page numbering, so the reader knows whereabouts in the standard version they are. This can be achieved by including the information within the text [perhaps in square brackets]; or including it at the top or bottom of the page. This can be useful for: anything with an index; text

books; novels (useful in book groups); bills (useful if the customer has to phone with an enquiry).

- 17** Update the contents list to include the new page numbers. If the original does not have a table of contents, **consider** if this would be a useful addition. Remember, a large print version will be a significantly larger document than the original [\[Note 5.17\]](#).
- 18** **Consider** including a line at the header or footer of each page that contains information additional to the page number. For example this could include section and / or chapter headings.
- 19** **Consider** adding navigation aids, for example where the reader should look for a diagram. These could be bold and in square brackets [\[Note 5.19\]](#).

6. Make images and diagrams accessible

- 1** **Consider** whether an image conveys relevant information, or would be better omitted altogether [\[Note 6.1\]](#).
- 2** **Consider** if an image needs to be modified or simplified. This includes ensuring sufficient colour contrast [\[Note 6.2\]](#).
- 3** If an image is to be included, add a text description / caption conveying essential information [\[Note 6.3\]](#).
- 4** If modifying an image, ensure the information in the original version is conveyed in the modified version, even if the format is changed slightly. For example, if a graph is too large to present in the same way as the standard print version, you may need to redesign the layout. If so, be sure you have correctly interpreted the original information [\[Note 6.4\]](#).
- 5** **Consider** solidifying objects using colour or greyscale. Line drawings of objects can be very difficult to interpret. Fill objects in such images to 'solidify' them [\[Note 6.5\]](#).

- 6 When modifying images, diagrams and tables, **consider** the appropriate orientation and / or using larger paper [\[Note 6.6\]](#).
- 7 Ensure text labels printed on diagrams are horizontal, the text size and typeface are as stipulated for the rest of the document, and the labels do not overprint other information [\[Note 6.7\]](#).

7. Consider using templates

- 1 Consider using templates for frequently required formats as this will make transcription quicker, more accurate, and more consistent [\[Note 7\]](#).

8. Check the document

- 1 Check the document layout has been accurately reinterpreted from the original, and ensure the content matches the original.

9. Use appropriate binding and packaging

- 1 Bind the document so that it lies flat, has adequate margins, and the binding does not interfere with the text. (See guideline 5.14 for explanation).
- 2 If your binding includes a cover, ensure this is non-glossy to avoid glare.
- 3 Label the package clearly, and in the same size text as used in the document.
- 4 If required by the client, clearly mark who the package is from.
- 5 Make sure the package can be opened safely and easily by someone who cannot necessarily see what they are doing.

10. Get the document there in good time

- 1 Ensure the document arrives with the user at the same time as sighted users receive their copy or by a pre-determined deadline agreed with the customer, and to give ample opportunity to take any action required.

Notes

These notes add additional detail to the corresponding guidance in the previous section.

Note 1: User needs and preferences

People's vision varies greatly. Reading vision is affected by a wide range of factors including:

- Acuity (ability to see detail)
- Visual field (for example someone with tunnel vision might only be able to see a few letters at a time. This affects reading speed and makes it impossible to scan read, but they might have good acuity. Someone with loss of central vision such as macular degeneration will not be able to see detail)
- Contrast sensitivity (so that faint text may be impossible to see)
- Light sensitivity (many people need good light but others see better in dimmer light, and many people are sensitive to glare)
- Colour vision (some people cannot differentiate some colours)

Different sight conditions have different effects, and the effect of a particular sight condition will vary from person to person. Any one person may have more than one sight condition.

Legibility is therefore affected not just by the text size, but also by contrast, typeface, line and letter spacing, and paper colour. It is also affected by the person's circumstances, for example the

lighting conditions when they are reading, or their state of health on the day. Someone may be able to read a short item in a particular text size, but may need larger text for sustained reading, or to use an alternative medium such as audio.

Note 2: Do not enlarge text with a photocopier

This creates several problems for the reader. An A3 document is unwieldy to read, carry and store, and this may be particularly difficult for someone who gets very close to the page to read. It may be unacceptable because it makes the reader stand out, for example within a school class. If the text is faint or of poor quality, this is likely to get worse when enlarged in a copier, as are graphics and images. Any design features that are difficult for someone with sight problems to read such as italics are not resolved.

It may be acceptable under certain circumstances to enlarge with a photocopier, for example from A5 to A4, but in this case you should check the document still complies with the clear and large print guidelines.

Having said that, A3 can be suitable in some situations, see 'paper size and orientation' at [Note 3.8](#).

Note 3.1: Text size

A given numerical text size such as 12 or 14 point will vary from typeface to typeface. For example Arial 14 point appears larger than Times New Roman 14 point. So although point sizes are used for convenience, they are not precise. A more precise measure is x-height, which is the height of the letter x in the given typeface. The recommended x-height for 12 point is 2 mm, for 14 point it is

2.3 mm, for 16 point 2.8 mm, and for 18 point approximately 2.9 mm.

In general UKAAF recommends 12 point as the minimum with 14 point recommended for generally accessible documents, and 16 point minimum and 18 point preferred as the default for large print. 24 point is sometimes known as giant print.

However many people will need larger text, and one option is to produce documents in a range such as 14, 18 and 24 point which will meet many people's needs, although some will need larger text than this.

A few people with sight problems prefer smaller print than 14 point. For example someone with tunnel vision who only sees a few letters at a time but who has good acuity may be slowed down by larger print.

You may wish to consider including a note offering the opportunity for people to request a different text size.

Note 3.2: Italics, underlining and blocks of capitals

Italics reduce the clarity of text as they distort the standard letter form readers are used to seeing and affect the spacing between letters. Underlining also affects the standard letter form and overtypes descenders. Blocks of capitals can be hard to read as all letters are the same height, removing the visual cues provided by letters with descenders (y, g) or ascenders (k, h), although a few words in capitals are acceptable, for example in a heading. In general, bold text is preferred as a method of emphasizing text.

If the user requires ordinary body text to be bold, an alternative method will have to be used for emphasis. Possibilities include: quotation marks; a larger text size; capitals; or even italics. Italics

and blocks of capitals are inaccessible to some users, so these should be agreed with the user.

Example of the effect of italics, capitals and bold text:

*Italics reduce the clarity of text as they distort the standard letter form readers are used to seeing and affect the spacing between letters. Underlining also affects the standard letter form and overtypes descenders. BLOCKS OF CAPITALS CAN BE HARD TO READ AS ALL LETTERS ARE THE SAME HEIGHT, REMOVING THE VISUAL CUES PROVIDED BY LETTERS WITH DESCENDERS (y, g) OR ASCENDERS (k, h), although a few words in capitals are acceptable, for example in a heading. In general, **bold text is preferred as a method of emphasizing text.** If the user requires ordinary body text to be bold, an alternative method will have to be used for emphasis. Possibilities include: quotation marks; a larger text size; capitals; or even italics. Italics and blocks of capitals are inaccessible to some users, so these should be agreed with the user.*

Note 3.3: Typeface

Use a legible typeface

Some people will see everything as blurred, or have difficulty in distinguishing fine detail. It will therefore be easier to read a document that has a clear uncluttered typeface, and preferably one in which different letters are clearly distinguishable. Many people express a preference for either a sans serif typeface or a serif typeface. However there is no definitive evidence as to whether serif or sans serif typefaces are easier to read for most people, and some evidence that it makes no difference. Examples of legible typefaces include Arial, Verdana, Trebuchet, Times New Roman.

An example of a difficult typeface is Monotype Corsiva. Some typefaces have inaccessible forms, for example Arial comes in a light version which is not accessible.

Example of different font styles:

This is typed in Arial.

This is typed in Verdana.

This is typed in Trebuchet.

This is typed in Times New Roman.

This is typed in Monotype Corsiva.

Use a font commonly available on computers

When choosing a font, try to use one that is available on most computers. For example, a font that came with your computer is more likely to be commonly available than one installed or downloaded separately. If you have used a font that is not available on the computer being used to print your document, another font will be used as a substitute. As you have no control over the substitute font, it may not have a legible typeface. Using a commonly available font such as Arial means that this situation is unlikely to arise.

Note 3.4: Small print, subscript and superscript

When transcribing a document into large or clear print, you are doing so to a set point size, for example 18 point. If we assume that a reader requires this size of text because anything smaller will be inaccessible, it follows that **all** of the text must be at least 18 point. Therefore, any 'small print' must be increased to match the remainder of the document. Ensure that subscript and superscript text is also set to 18 point.

If it is important to keep the relationship of larger and smaller point sizes, for example in chemical formulae, ensure that the smallest size matches that of the document as a whole.

Example:

	No	Yes
Superscript	18 th September	18th September
	Intersection ¹	Intersection (note 1)
Subscript	CO ₂	CO ₂

Note 3.5: Contrast

Creating documents and images which contain high contrast between text and background will make documents more accessible.

- Reversing out type (white on dark background) is preferred by some readers as it also reduces paper glare. When doing this, use a dark background colour with a bold font as white text can appear smaller; or if badly printed the darker ink may start to fill in the white. The text size may also need to be increased to compensate for this.
- Avoid placing text directly over an image or patterned background as the contrast will vary and the shapes of the letters may appear distorted.

When using colour with text:

- use a plain coloured background if using text against colour
- use high contrast between text and background colour

- using a paper colour with a coloured tint of 10% – 15%, such as a pale yellow, can help reduce paper glare which some people find uncomfortable
- avoid using similar colours together, for example red and orange, or green and turquoise, particularly if they are similar in brightness as they will not be easy to distinguish
- avoid placing achromatic colours (black, white, grey) against colours of similar lightness or darkness, for example dark grey against black
- avoid placing pastel colours against white or grey
- avoid placing dark colours together or against black
- avoid placing light colours together or against white
- use complementary colours together with care, for example orange with blue, red with green, or purple with yellow, as they can cause a jarring effect if they are too similar in tone

Note 3.6: Colour differentiation

Some blind and partially sighted people have difficulty distinguishing colours of similar contrast or similar tone such as dark blue and black. In addition many people have colour vision deficiency, where they find specific colours difficult to distinguish.

Colour vision deficiency

Colour vision deficiency, also known as ‘colour blindness’, can be present from birth (congenital), affecting about eight per cent of men and one per cent of women, or can be acquired in later life.

The most common type of colour vision deficiency is genetic red-green colour vision deficiency. Most people who have this type of deficiency are unable to distinguish between red and green in dim

light, and a small percentage have difficulty doing this even in brighter light.

Rods and cones

Rods and cones are the light receptors in the back of the eye. It is the cones that respond to colour. There are three different kinds of cone, reacting to short, medium and long wavelengths of light. These correspond to the red, green and blue areas of the visible colour spectrum. The absence of sensitivity, or an altered sensitivity, in any of the cones will result in confusion between some colours. Some people have little, or no ability to see colour at all.

People with genetic variations are more likely to be able to distinguish yellow as a colour than red or green. People with acquired colour vision deficiency (brought about by injury, age or by developing an eye condition) are less likely to be able to distinguish yellow.

Simple guidance

There are no set rules to ensure that anyone with colour vision deficiency will be able to distinguish the full range of colour in any publications, but following some simple guidelines can minimise the difficulties:

- ensure there is a good contrast between text and background
- avoid combining red and green
- avoid combining yellow and blue
- avoid combining colours of similar tone such as dark blue and black.

Note 3.8: Paper size and orientation

In general A4 portrait is preferred for standard documents. However some layouts may be clearer on larger paper or in landscape orientation. For example, using larger paper or a different orientation may make it possible to include the full width of a table, more columns of a spreadsheet, a whole diagram, or a complete map. The greater ease of comprehension this gives may outweigh the general unwieldiness of larger paper.

Note 4.2: Printing text size on the cover

Many people do not know what size a specific piece of text is, so cannot tell you their preferred text size. It is very helpful to both the user and yourself if the text size of your document is stated on the cover, to provide a starting point for any discussion. If you are printing a document without being sure what the user needs, one option is to state the text size along with a statement that if they require larger text or a different medium they can request it.

Note 5.1: Layout

Page layout is important to partially sighted people because it can help them to find their way around a document in an easy and logical way. This can be achieved by using type and images in a consistent way and by using a grid on which to place these elements.

Grids are an invisible set of lines that are used as guides to place type or images in a consistent way throughout a document. These are set when you first create a document but can usually be changed later. These guides can include: margins (the distance of text columns from the edges of the page and from the spine); text

column depth; gutter width (space between text columns); position of page numbers; and placing of headers or footers.

Not all elements have to be aligned to the top line on a grid, for example a chapter heading may appear lower down the page. This is acceptable providing the chapter heading always appears in the same place in each chapter so the reader knows where to look for it.

Page numbers, headers and footers may appear to the left on a left hand page and to the right on a right hand page, providing they are used consistently throughout the document.

Note 5.2: Text and heading alignment

In general text and headings should be left aligned. This assists a reader with a restricted visual field to locate the beginning of the line easily. Unlike full justification, it also ensures that word and character spacing is consistent. Full justification can lead to large spaces between words which may be mistaken for the end of a line, and conversely text may be cramped.

It can be acceptable to centre headings where they are used in a consistent way, such as chapter titles or main headings on a new page, although this should be designed with care.

On some short printed materials it is conventional to centre text, such as invitations or menus, and most partially sighted people will be able to cope with a small amount of text in these circumstances.

If headings are to be centred, wider headings that take up nearly the full width of a column for each line will make it easier to find the start of each new line. Short headings will make this more difficult. Therefore it is important to check throughout the whole document that headings are sufficiently long enough to make reading them

as easy as possible. If there are too many short headings it will make it difficult to navigate the document and it may be necessary to left align all of the headings.

It is important that the use of headings is consistent throughout a document to make navigation as easy as possible. For example, by using the same typeface in the same colour, size and weight for similar kinds of information, and by having the same amount of space above and below the heading. There should also be a distinct visual difference between the different heading levels.

Note 5.5: Separating text and images

Placing text over images should usually be avoided, as there is normally insufficient contrast between the text and background for the text to be legible.

However, placing text over an image can be acceptable providing there is sufficient contrast for the text to maintain legibility. For example, placing dark text over an even tone on a photograph, such as a very light blue sky may be acceptable, or placing white text over a very dark night sky.

Making text larger and / or a heavier weight will help maximise contrast between text and background.

It should be taken into account that text placed over an image may not be noticed by some partially sighted people, as they may not expect to find text there.

Note 5.6: Splitting items of information

It is important that items of information are not split across lines of text as it disrupts reading flow. For example, splitting telephone

numbers or website addresses across lines of text may make them difficult to read or to remember.

This is especially important for someone who is partially sighted and may be using some kind of magnification to read.

Information that includes a combined symbol and word should also be kept together, for example £10.00, 50 per cent, 80 mm, 3 million, 2 x magnification. Hyphenated words should be kept intact whenever possible. Ideally people's forename and surname should also be kept together.

Automatic hyphenation should be avoided as it adds hyphens throughout the text to allow more words per line, but reduces reading flow by splitting words.

Note 5.7: Line, word and letter spacing

Leading and line spacing

Leading is the vertical distance between two lines of text measured from the baselines of the text.

Reducing leading can make text appear to merge between two lines, or at worst cause letters from different lines to touch or cross, making letter recognition difficult.

Some programs refer to leading as line spacing.

Word and letter spacing

People read words by recognising whole word shapes rather than individual letters, but to achieve this it is important that the individual shapes of letters are easy to distinguish.

Reducing the space between letters or words, or changing the proportion of letters (by horizontal scaling) is often used to fit more

words to a line, but this can make letters run visually into each other, thereby reducing legibility.

It is also important to keep consistent spacing between letters and words as this helps with word shape recognition.

Text should be left aligned and not justified. Justification works by altering the space between letters and between words to fit words exactly to a column width.

Increasing leading can help with letter shape recognition and improve reading speed.

However too much space between lines, words or characters can also make reading harder.

Note 5.8: Indenting

In general indentation should be avoided for the same reason as left alignment is preferable – avoiding indentation makes it easier to find the beginning of the line. Instead, paragraphs can be differentiated by putting a blank line between them. However in some circumstances indentation can assist navigation by imposing a visual pattern on the page. For example a hanging indent in a bulleted or numbered list may make it easier to locate each item in the list. Staggered indents may assist in identifying the main points and sub-paragraphs.

Note 5.11: Page breaks, widows and orphans

Widow

A line at the end of a paragraph that sits at the start of the next page or column. This results in the end of the paragraph being separate from the rest of the text.

Example of a Widowed line

This is the text of the paragraph in question which ends a little way after the actual end of the page or column. The line (or part of the line) that sits on the next page or column

is the 'Widow'.

This is the text of the following paragraph.

Orphan

A line at the beginning of a paragraph that sits by itself at the end of a page or column.

Example of an Orphan line

This is the text of the previous paragraph which ends a little way before the actual end of the page or column.

This is the 'Orphan' line as it sits

on the previous page or column. This is the remainder of the text of the following paragraph.

Note 5.13: Columns and optimum line length for text

It is impossible to give a specific optimum line length for reading text.

Some research suggests that using between 47 and 75 characters per line is a satisfactory line length, and 66 characters, including spaces, is the ideal. More recent research suggests that longer line lengths increase reading speed as there are fewer distractions,

with some suggesting that between 72 and 96 characters per line (even up to 110 characters), is faster to read, even though readers in this research said they preferred shorter line lengths. Very short line lengths can increase eyestrain as time taken to read forwards and time taken to scan backwards to find the next line become shorter.

It must be noted that most recent research has been carried out on screen use rather than printed material use, and on fully sighted readers. Many partially sighted people hold the page quite close to their eyes, reducing the number of characters they can read without moving their head or the paper. Therefore, longer line lengths may not necessarily be as easy for partially sighted people to read as fully sighted people, so for now the results of this new research remain ambiguous.

However, the shape of the letters, the size and weight, letter spacing, word spacing and contrast can all affect reading speed and reading comfort.

Note 5.17: Contents list

The original document may not have a contents list, but the longer length of the large print copy can make one helpful for the user to find their way around.

The contents list could have original page equivalents as well as the page numbers of the new large print document.

Example of a contents list

Contents		
	Large print page number	Original text page number
Chapter 1.....	15.....	9
Chapter 2.....	35.....	27

This is particularly helpful if the user needs to view the text at the same time as sighted companions.

The original text page number is inserted in the large print version in the appropriate place, while the large print page number appears in the footer.

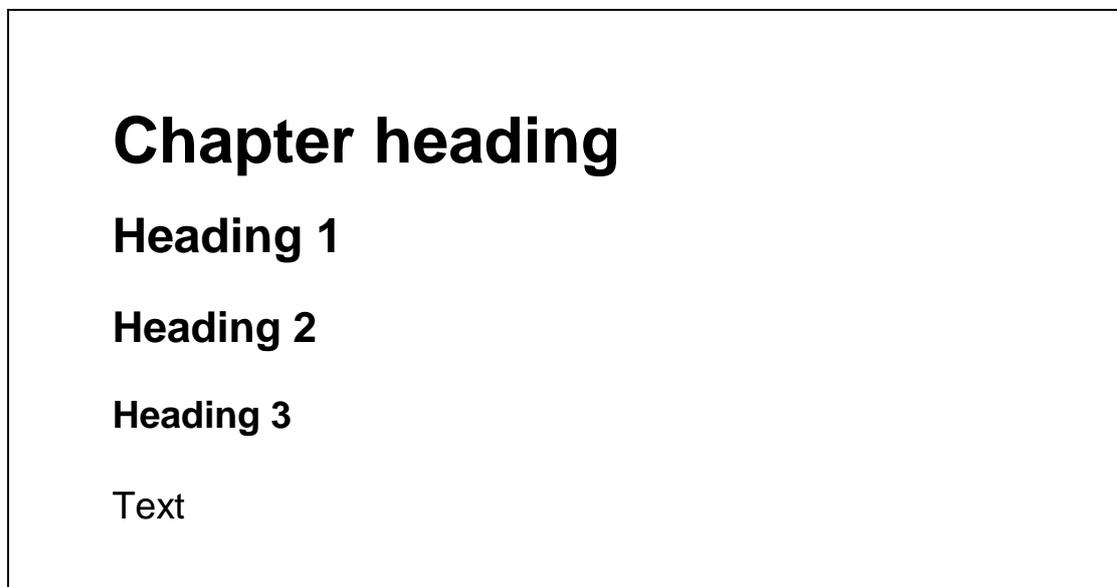
Note 5.19: Navigational aids

Navigational aids are used to tell a reader what kind of information they are looking at, for example how big or bold a heading is will indicate the kind of information that follows. Symbols such as arrows or triangles can be used to indicate if text continues over a page, or is continued from a previous page; or a square can be used to indicate that an article has finished. The specific symbol used is not as important as its consistent use.

Consistent use of type is important. Similar kinds of information should be presented in the same way. For instance a hierarchy of headings (A heading, B heading; or heading 1, heading 2 etc. See example at the end of this paragraph) will help the reader to know what kind of information they are looking at. There should be sufficient difference between the heading styles to make them

easy to tell apart. There should also be consistent spacing between headings and text.

Example of a heading hierarchy



Aids can also include information such as image captions, which need to be identifiable as different from headings or text, for example by placing text in square brackets. These should appear in the same place in relation to their image each time they are used.

It may be necessary because of lack of space to separate a diagram or table from the text it refers to. In this case there should be an indication in the text of where the relevant image is, and an indication with the image of where the text is.

In a contents list, if there is text on the left of the page and numbers on the right, a partially sighted person may have trouble aligning the information, so it is helpful to join the two elements, for example with a dotted line.

When more than one column of text is used it may help to have a vertical dividing line between them. Also, partially sighted people tend to read from top to bottom of the left column on a page then the right column, so if a page is split horizontally with a two-column article at the top of a page and another two-column article at the bottom, you may need a horizontal dividing line or some other aid to separate the two articles.

Example of a Navigation Aid

Bottom of page 1

If you are in the middle of a larger paragraph that splits over onto the next page or column, then consider the addition of a navigation aid, such as an arrow, to alert

The reader to the fact that the paragraph continues on the next page or column. →

Top of page 2

→ So, the arrow on the previous page instructs the reader that the information is not complete, and that they must move to the next arrow to complete the journey.

Note 6.1: Whether an image should be kept or omitted

Decide whether an image is to be kept or omitted. This will depend on the information within the image and how the image is going to be used.

If there is useful information within the image; such as how a concept works, or data which needs to be interpreted, it will be appropriate to keep the image. Some concepts work best when presented as diagrams, so it is important that these images are retained.

If an image is decorative, decide if the image is needed at all. Images can be used to add interest to a document though they may take some time to interpret; judge if the image is necessary. Again this will depend on the context in which the image is going to be used.

Note 6.2: Image modification

If you decide that the image needs to be kept, evaluate whether it needs to be modified or simplified to make it easier to read.

To do this, evaluate what the purpose of the image is and what information it is conveying. It is essential this information is retained. For diagrams which are very detailed or cluttered you could remove any unnecessary detail or break the image down into a series of simpler images.

Images will also need to be checked for:

- Good colour contrast: use light colours against dark colours; and very pale greys against very dark greys to ensure the image is clear and easy to read
- Legible text labels: these will need to follow large print guidelines: be in a legible font; be in an appropriate text size; and be printed outside the image or in the clear spaces within it rather than overprinting detail.

Note 6.3: Image description

Ensure the reader is receiving the same information that a sighted reader receives. If the image is simple, for example a photograph of a person, a brief caption stating the person's name may be sufficient. Providing a description of an image will help readers understand what the image is showing and the information it contains. Assess whether the image is conveying information which is not given in any accompanying text. This information is vital to include in the description.

To write an effective description:

- Give the image a title: this will quickly tell a reader what the image is of
- Start a description by briefly stating what, and where, the main features are in an image. The image will be easier to understand if this information is given in a logical structure around the diagram.
- If necessary, after writing a brief description, give any further in-depth detail
- Follow this by giving any information or data the image is showing. Take care with educational images used in tests or assessments to avoid giving away any answers in the description.

Following this order will mean that the image's main features will be described and its information will make sense. Aim for the description to be as brief and succinct as possible.

Note 6.4: Conveying information from original image

It is vital that a partially sighted reader is provided with the same information as a sighted reader. Some diagrams; such as pie

charts and graphs could be reformatted and presented as simple tables instead. Carefully review the information and data provided in an image and ensure this is maintained in any modification.

Note 6.5: Solidifying images

Some black and white line images can be difficult to interpret as there is too much white space; for a person using a magnifier it can be unclear what they are looking at. These images can be adapted by adding colour. The two sets of images below provide examples of this. The map shown in images 1 and 2 below is a very good example of the need to solidify line art – if you didn't know where those cities were, it would be difficult to spot the sea. Similarly, in images 3 – 5; although the differing textures in the geographical image help to differentiate the sea, sky, sand, cliff and grass, it is far easier if they are also differentiated by solidifying, whether by colour or greyscale.

Image 1: Map of England and Wales with the motorway network as a line drawing



Image 2: The same map with the addition of colour



Image 3: Geographical image of coastal features as a line drawing

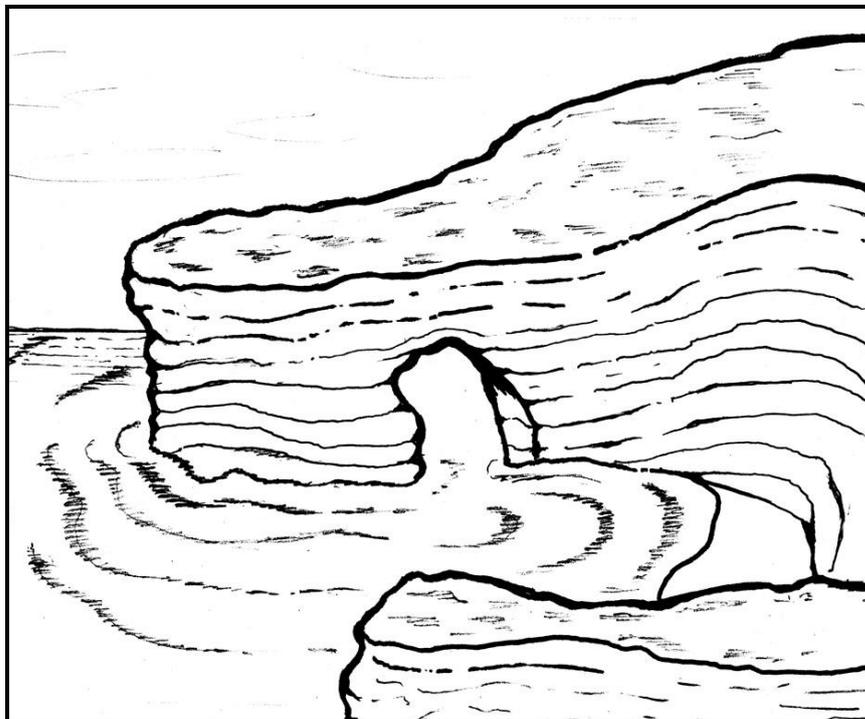


Image 4: The same image with greyscale shading

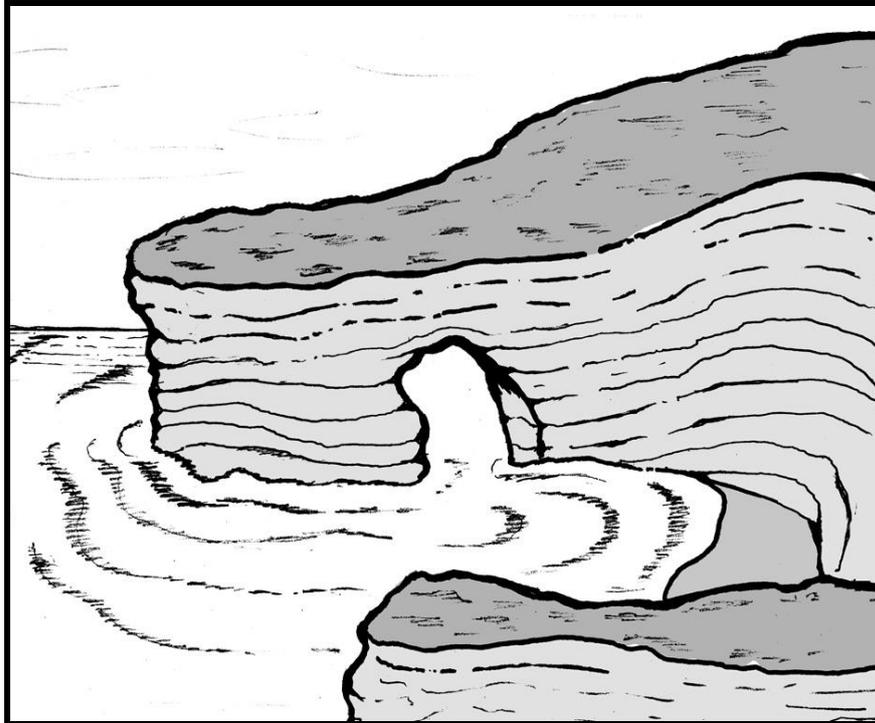
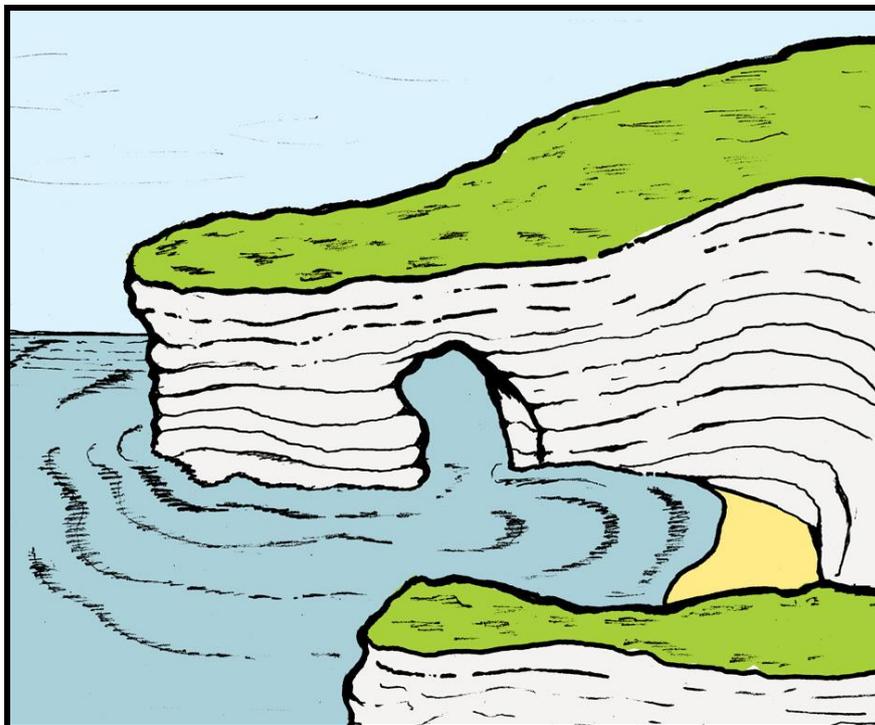


Image 5: The same image with colour shading



Note 6.6: Altering paper orientation and size for images

If any images need enlarging consider altering the page orientation. For example, an image on a portrait layout that is wider than it is tall may be enlarged effectively if placed on a landscape layout instead, and similarly an image that is taller than it is wide can be enlarged by placing on a portrait layout rather than landscape. A larger page size such as A3 can also be used to give more room. Use A3 with care; as it can be physically awkward to handle and can take up a lot of space.

Note 6.7: Image text labels

Ensure any labels are presented horizontally, as this will be easier to read. Using rotated text means that the end user will have to rotate the page in order to read it. This makes reading the image challenging and awkward.

Any text labels must also match the size of any accompanying text to ensure they are legible. Text must be printed on a clear background, with good colour contrast. Avoid placing text directly over an image as this can distort the letter shapes, making any labels difficult to read. Any lines pointing from the label to the relevant part of the image must stand out clearly.

Note 7: Templates and Styles

Templates and Styles are invaluable for supporting consistent look and feel, and efficient production of documents in alternative formats. Different software programs may use different terminology, but essentially using a template with built in styles supports efficient, accurate and consistent transcription. For

example, if styles are used, modifying the size, spacing and font style of a specific level of heading only requires one style definition to be altered. Without styles, the transcriber would need to locate and alter every heading individually. Similarly, copying text from a document based on one template into a document based on another template automatically updates the formatting. For example if body text was Arial 12 and heading text Arial 16 in the first document, copying the text to a document based on a template with body text set to Arial 18 bold and heading text Arial 24 bold would automatically increase the text sizes and bold the text.

Glossary

A3 paper

A size of paper, 420 mm x 297 mm (16.5 inches x 11.7 inches).
(Dimensions of the A series paper sizes, as defined by ISO 216.)
See **ISO**.

A4 paper

A size of paper, 297 mm x 210 mm (11.7 inches x 8.3 inches).
(Dimensions of the A series paper sizes, as defined by ISO 216.)
See **ISO**.

CCTV

See Video magnifier.

Font

A complete set of characters in a particular size and style of type.
For example, Arial Bold 12 point is a different font to Arial Bold 14 point, although they both belong to the same typeface. See **Point size** and **Typeface**.

GSM

Weight of paper in grams per square metre (gsm). Typical photocopier paper is 80 gsm; letterhead paper can be up to 120 gsm; a typical postcard is 300 gsm.

Gutter

The gap separating columns of text.

ISO

International Organization for Standardization.

Kerning

Adjusting the horizontal space between pairs of letters to create visually equal spacing throughout the text, aiding the eye to move smoothly. This is especially necessary with pairs of letters that have overlapping space such as AV, WA, LY, Wa or Vo.

Kerning is usually applied to all text automatically to a set of pre-determined values, but some programs allow manual kerning to make fine adjustments.

Kerning is often necessary with larger text sizes and headings where inter-letter spacing becomes more obvious.

Leading / line spacing

The amount of vertical space between the baselines of two lines of text. Programs apply leading automatically based on the point size of the text, but most programs allow manual leading to make fine adjustments. For example 12 point text could be given 3 point leading giving an overall leading of 15 point. This is expressed as 12/15 point. See **Point size**

Closer leading fits more text on the page, but decreases legibility. Looser leading can increase legibility. Leading can also be negative, where the lines of text are so close that they overlap or touch.

Letter spacing / tracking

Adjusting the average distance between letters in a whole word, single line or block of text to give control over line length. See

Word spacing

Low Vision Aids (LVAs)

Aids that someone partially sighted may use to make things easier to see. A typical example is a hand held magnifying glass used to enlarge detail.

Navigation

How easy it is to find your way around a document. Titles and section headings; table of contents and page numbering can all be used to assist document navigation.

Navigation aids

Instructions added to the original document, often in bold text in square brackets; or symbols such as arrows. These either direct readers to specific sections or elements in a document, such as graphs or tables; or they indicate where text runs over a page.

Paper orientation

Landscape

The aspect of paper when the horizontal dimension is greater than the vertical. For example, for A4 size paper, the height is 210 mm and the width 297 mm.

Portrait

The aspect of paper when the vertical dimension is greater than the horizontal. For example, for A4 size paper the height is 297 mm and the width 210 mm.

Point size

The height of a typeface. There are 72 points to the inch, so one point is 1/72 of an inch high (0.3527 mm). However, type sizes are not standard, that is, one size in a particular typeface is not necessarily the same size as the same point size in another typeface; for example, 14 point Arial appears larger than 14 point Times New Roman.

Serif / sans serif

Serifs are the small flourishes at the ends of characters in some typefaces. Sans serif typefaces omit the small flourishes (see example below). Popular sans serif typefaces include Helvetica, Avant Garde, Arial, and Geneva. Serif typefaces include Times Roman, Courier, New Century Schoolbook, and Palatino.



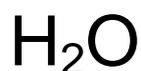
serif



sans serif

Subscript

Characters or symbols written next to and slightly below a letter or number. For example, in



the subscript is '2'.

Superscript

Characters or symbols written next to and slightly above a letter or number. For example, in

3rd

the superscript is 'rd'.

Table cell

A table cell is one grouping within a table. Cells are grouped horizontally (rows of cells) and vertically (columns of cells).

Typeface

A set of fonts of the same family design. For example, Arial is a typeface, but Arial Bold 12 point is a font. See **Font**.

Video magnifier (sometimes known as a CCTV)

An electronic magnifier, usually used to enlarge close work although distance models also exist. A camera is focused on the item to be enlarged, and an enlarged image is displayed on screen. Typically the user places a page on a sliding tray underneath a camera, and a magnified image of the paper is displayed on a monitor. It is usually possible to adjust magnification level and contrast, including reversing the colours to white on black. Hand held video magnifiers also exist, with a small inbuilt screen.

Word spacing

Adjusting the average distance between words to give control over line length.

Further resources

Accessible information

Pages on RNIB's website designed to help people understand a little more about making information accessible, provide key information to get people started, and to signpost additional resources to help people achieve the goal of ensuring any information they create is as accessible as possible.

http://www.rnib.org.uk/professionals/accessibleinformation/Pages/accessible_information.aspx

See it Right book

The See it Right book gives organisations the tools they need to improve their policies and procedures in terms of information provision.

http://www.rnib.org.uk/professionals/accessibleinformation/Pages/see_it_right.aspx

Well Prepared book

A guide to modifying examination and assessment materials for blind and partially sighted learners.

<http://www.rnib.org.uk/shop/Pages/ProductDetails.aspx?productID=ED51601>

Where to get further help

UKAAF assists businesses and organisations by advising how to meet the needs of customers and clients with print disabilities; providing guidance on how to source and provide quality accessible formats like large print, audio, braille, electronic file formats and Easy Read; and helping you to understand your responsibilities as a service provider.

Through our website and magazine, members will also gain access to:

- findings from public consultations and end-user research
- research and innovation in accessible formats
- information on suppliers of transcription services
- guidance and advice on standards for accessible formats
- opportunities to review and help to develop standards and guidance.

In addition to supporting service providers and transcribers, UKAAF also represents people with print disabilities. We believe that because format quality matters, end-users should have genuine input into the development of standards for accessible information. By collecting and sharing users' views with service providers and transcribers we can help them to deliver a quality service which meets users' needs.

UKAAF has a User Advisory Group (UAG) so we can include blind and partially sighted people and others with print disabilities in ongoing research and consultation on key accessible format issues.

There are many benefits of being a member of UKAAF, not least to demonstrate your commitment to quality accessible formats. For more information visit us at www.ukaaf.org.

Your feedback is welcome

We would welcome your views on this guidance, any suggestions for additions, or case studies of how this guidance has helped you. You might like to share your experience in an article in our magazine 'Format Matters'.

You can phone, email or write to us - our details are at the back, or use the feedback form on our website www.ukaaf.org.

If you find UKAAF's guidance valuable, please encourage others to join by visiting our website.

Appendix 1 Large print guidance for educational materials

Introduction

These notes are for use as a guide to the optimal large print modification of educational materials.

Please read the 'Detailed guidance on the production of clear and large print' section in conjunction with this appendix, which provides additional guidance for the modification of educational materials, and may also be helpful for other complex documents.

It is a legal requirement that students with a visual impairment have access to modified versions of materials that their peers are given, and that these modified materials are supplied at the same time as those received by their peers.

Access to educational materials

There are of course a number of ways for students to access materials, such as the use of large print, magnifiers, CCTVs, audio, one to one support providing access and so on. The decision as to how each lesson or text will be made accessible lies with Qualified Teachers of the Visually Impaired (QTVI) and other appropriate professionals.

Short lead times for modification are often a reality, and the modifier will have to decide on the optimal method of modifying materials or otherwise making them accessible within the available time.

From primary school onwards, but more so as the student gets older, students should be exposed to and taught strategies for

accessing materials which are not modified or not optimally modified. This skill is needed, for example, so that students can access reference material in libraries using an LVA (magnifier). The use of these skills should not be seen as negating the requirement to provide the majority of materials in a suitably modified format.

The balance between learning to access non-modified materials, using optimally modified materials, and the time available to provide these has to be achieved by QTVIs, modifiers and other professionals.

The modification process

Educational materials should be adapted into large print by a suitably experienced person. Both text and graphics need to be appropriately modified.

It helps to have a reasonable understanding of the subject of the material being adapted, as well as its intended educational purpose and technique.

The modifier needs to know how the student is going to answer any questions in an exercise. For example will they be writing on the material; is their handwriting very large; will they be answering on a laptop; would a laptop have the correct characters for answering a maths question; and so on. Younger pupils may need to be prompted as to how and where to answer questions if it is not apparent.

It helps to know when adapting material, particularly with younger students, whether a support worker will be present or not when the item is used.

It is important to know the purpose of the material within a lesson. For example, it may occasionally be acceptable or desirable to take information out of a table format and put it into a list format - but what if the teacher is studying the table format in that lesson? Equally it may be desirable to colour the rivers on a map, but that may be an activity in the lesson.

Minimising volume

Large print users have to carry around large volumes of adapted materials, and so all of the considerations in this guidance must be balanced against minimising the final volume of the adapted resource. Intelligent compromises should be made in consultation with the student.

As a consequence of this, duplex (two-sided) printing should be used where possible. However, when a student has to write on the material, such as in an exam paper, single sided printing should be used in order to avoid felt tips etc. soaking through and obscuring content on the reverse of the sheet.

Public exams

Public exams are currently produced in a limited range of large print formats and there are restrictions on the early opening of exam papers for further modification. It is important to check what formats are available and to make sure that appropriate arrangements are in place for a student to access these successfully. Gaining practice with past papers is an important part of exam preparation.

Guidelines for the optimal large print modification of educational materials

Assessing the student

Even with well adapted content, it is often the case that large print users have a considerable degree of difficulty accessing materials.

The results of this can be:

- It will take longer for the student to read the material than their peers
- They can become fatigued
- They can become stressed.

Consequently it helps if each student is individually assessed and the optimum font, point size, line spacing and letter spacing established.

It is also necessary to establish what colour vision the student has in order to establish which colours can be used to aid navigation and structure.

Always aim to minimise the effort the student must put in to access educational materials.

Layout and navigation

A modern text book will often contain, over two facing pages, many text panels and graphics. These panels are often colour coded, or use different type styles and layout, in order to help the student navigate and comprehend the nature and structure of different sections of information on the page. The student can scan, comprehend, and move around the pages quickly and easily.

For the partially sighted student however, this information can be spread over ten or even twenty pages, making it much more difficult to navigate, and forcing them to jump back and forward in the text.

Consequently it helps to review the content of the pages, and:

- Add navigation comments (in a consistent typeface or box distinct from the main text). These comments guide the student to items, which though adjacent in the original, may be several pages apart in the large print material.
- If necessary re-order the material to make it more comprehensible when read in a linear fashion. Do not, however, re-structure material in such a way that it cannot be followed along with other students in the class if this is likely to be a requirement of the lesson.
- Repeat some items, such as a necessary equation, on each page.
- Carefully consider what information to best fit and include on each pair of facing pages.

Developing suitable styles for the student

Just as standard text books often use different styles to structure the content, the use of styles will help the large print user.

Two facing pages in a physics text book may use six or seven distinct type styles, background colours or boxes to structure information. If this is turned into fifteen pages of identical 20 point Arial paragraphs in the adapted version, it can become impossible to access.

It therefore helps to sit down with the student and identify a range of distinct paragraph styles which can be used to structure the text.

Styles can include:

- A standard, default paragraph style for the main text of the book. If possible this should be a plain font so that bold and italic can be used to highlight individual or groups of words. Note - italic fonts can be inaccessible to many users. In consultation with the user, a few italic words may be used, only very rarely will a student be comfortable with whole paragraphs in italic. However, some students require bold as their default typeface.
- A range of bulleted styles, of varying indent, possibly using a range of colours for the bullets
- A range of indents
- A range of fonts
- Plain and bold paragraphs
- A range of paragraph numbering and lettering styles
- A range of coloured boxes around paragraphs
- Combinations of bullets and boxes can be used.

Keep the number of styles to a minimum, whilst still having sufficient range to structure the text.

When using boxes around text, establish a suitable margin between text and box.

Developing a template for the student

For each student, a suitable template of styles for the software in use can be created. If this is done, the modification of materials

can be carried out much more quickly than manually altering each paragraph.

Although the use of 'styles' for formatting text may not be familiar, it is worth learning how to use this technique in your software, as the savings in time, and improvements in quality for the student can be substantial.

It is desirable that a common range of style names is established and used for all student templates.

Thus you may for example, in every student's template, have the following styles:

Default text 1, Default text 2, Heading 1, Heading 2, Heading 3, Caption, Indent 1, Indent 2, Indent 3, Hanging 1, Hanging 2, Hanging indented 1, Hanging indented 2, Page number, Boxed 1, Boxed 2, Bulleted boxed, No paragraph gap.

Although each student will have their own type styles for each of these names, each template will have the same 'set' of style names.

The consequence of this is that if student A has a set of paragraph styles based around 24 point, and student B around 16 point, a 24 point version of the book can be used, the 16 point template applied, and because the style names are the same, the book will be automatically converted to 16 point with all the correct styles in place for the 16 point user. This saves a great deal of time.

Using this procedure, it is of course still necessary to go through the new 16 point version, adjusting page breaks, the position of graphics (though if correctly formatted originally they will at least 'follow' the paragraph they were 'attached' to in the 24 point version), navigation cues etc.

Page numbering

The page numbering of the original text should be included.

For example, this can be included in square brackets within the text, in bold **[Page 78]**. This technique can be appropriate for large amounts of prose such as novels.

However, if the student will need to find page numbers quickly in a text book using a range of paragraph styles, then consider using a particular style for the page numbers, put them on their own line, and perhaps have a blank line above and below. Sometimes, in agreement with the student, these numbers can be in colour. In general avoid coloured text, but putting blank lines above and below, and a flash of colour, can help the student quickly find a page number in a long text. Also consider writing the word 'Page' before the number, as this gives a larger target for the student to find, for example:

Here is the final sentence of page six in the book, which ends here.

Page 7

Here is the first line of page seven in the book.

As the original standard print may cover several sheets in the large print version, it helps to place page numbers at the beginning of the text from that page, rather than at the end, as in the example above.

Left hand navigation

Where possible text should be left aligned. However, a title can be centred without causing major accessibility issues.

Graphics

Graphics should be suitably adapted and inserted in the text or presented separately, as appropriate.

Appendix 2 Modified Stave Notation

Please read the 'Detailed guidance on the production of clear and large print' section in conjunction with this appendix, which is additional and is specific to the transcription of music notation.

Find out what size music notation the user can read. Remember that the text size may need to differ from the default stave size of the notation. Find out how the user will use the score: in hand for choral, on piano stand, on free-standing music stand, pinned to wall.

Different users and different types of score will need different modifications: thickened stave lines and / or (de)crescendo hairpins, larger articulation marks, different size text etc.

Unless the user specifies otherwise:

- Use appropriate paper: A4 is the maximum size for hand-held choral music. Large stave widths (18mm and above) for double stave music, as in piano music, will probably need A3 paper and landscape orientation. Some users find coloured paper easier to read.
- Use a minimum stave depth of 14 mm
- Use a minimum text size of 18 point bold for expression marks, lyrics, fingering, chord symbols
- Use a sans serif typeface, such as Arial, for all text including expression markings and dynamics: do not use Opus text
- Be consistent in placement: all fingering above treble stave and below bass stave; chord marks above stave; all lyrics below stave
- Omit abbreviation dots and page numbers; bar numbers / rehearsal marks will usually be sufficient

- Compress bars and increase number of bars per line to remove unnecessary spacing between notes
- Where possible, create page breaks at rests in the music.

Glossary for Modified Stave Notation

Articulation marks

The dots, small lines and other such small marks close to the noteheads used to indicate staccato, tenuto or accented playing of the notes.

Hairpins

The angled lines used to indicate crescendo and decrescendo.

Modified Stave Notation (MSN)

A term given to describe music in large print. MSN enlarges the music generally and makes a score more consistent, but it also alters the proportions involved. The spacing of notes is adjusted and other features such as articulations and expression marks may be disproportionately enlarged.

Opus text

A font used in music characterised by elaborate curlicues. It is generally used for expression marks such as f or p.

The stave or staff

The horizontal grouping of five lines on which the notes are written.

Image 1: Example of Modified Stave Notation

Sonatina in F

Allegro assai ♩ = 88-92

The image displays three systems of musical notation for a piano piece. Each system consists of a grand staff with a treble and bass clef. The first system is marked with a forte (f) dynamic. The second system is marked with a piano (p) dynamic. The third system is marked with a forte (f) dynamic. Fingerings are indicated by numbers 1-5 above or below notes. The notation includes slurs, accents, and dynamic hairpins. The piece is in 2/4 time and the key signature has one flat (F major).

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Notes

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