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Remember that you are not designing for yourself, you are designing to communicate to others. Take the audiences needs, skills, and abilities, into consideration when developing your design as well as taking cultural differences into account.

What makes a good design? I have produced this guide to give you some tips on what you need to consider when designing information, in particular healthcare information.

Good Design Basics

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The Important:

- Typography
- Imagery

And the three C's:

- Colour
- Composition
- Costs

Figure 1. The above diagram has been devised to help highlight, what I believe to be, the most important elements you should be considering throughout the design process.

For further advise or information please contact the author:
Claire Blood, Graphic Designer at South Tees Hospitals NHS Foundation Trust on 01642 835907.
This section is written with healthcare information specifically in mind. There are certain recommendations to follow when designing for a wide and diverse range of people.

**BODY COPY!**

Reading can be difficult if columns are too wide, try to use a column width of 40-55 characters. The column width this text uses is probably the maximum you would use for this sized font. The space between columns of text should be of a distinct size.

Generally in printed material the RNIB recommended font size is a minimum of 12 point but for this guide I have used 10 point as it will be used online as an electronic resource and therefore readers can zoom in and out. The RNIB guidelines have been specially created to enable everyday information to be immediately accessed by more people. To achieve a clear print document which appeals to a wider audience including elderly people and many others with sight problems then text size should be 12-14 point, preferably 14 point. It helps readers if titles stand out as they become a natural break in the text. Make them a point size larger or in bold.

You should also take into consideration the ages and reading skills of the audience and the physical size of the item you are producing. Leading affects legibility (spacing between lines) and you should choose leading of 2 points more than the type point size. This text is 10 point and I have used leading of 14 point. Standardise the vertical spacing between titles and text, before and after subheadings and between paragraphs as much as possible. This makes for a overall consistent look. Also allow for larger spacing in forms so that people can fit their handwriting in the gap.

All body text should be left aligned, otherwise referred to as ragged right. This helps people follow where they are in a paragraph easier as all the line lengths are different. It is also less formal and therefore more personal to the reader. If you are wrapping text around an image then justified text gives a better over-all look, but be careful of big gaps between words. Text wrap requires extra work to make it look good including editing the copy.

Don’t use blocks of capitalised letters, using all capitals in body copy looks like the words are being shouted at you. Avoid the use of italics and underlining which cuts through the descenders of lowercase letters as both these features make text harder to read. The same applies to the use of bold, use sparingly and only highlight a few words rather than a whole paragraph.

Avoid hyphenating words as this makes the word harder to read and from a visual point of view don’t leave single words at the bottom of a paragraph or single words or lines at the top of a column.

It is important to make sure the contrast between the text and background is as high as possible. Reversing type can make titles stand out but be careful to ensure that the type is big and bold enough. Minimum point size should be 14 and the type style should be bold. Avoid delicate serif fonts and detailed patterns. When reversing copy the minimum gray value should be 40%.

Lastly spell check and get your item proof read!
The phrase ‘a picture paints a thousand words’ might not necessarily be 100% true but a relevant image can certainly support and clarify a piece of writing and guide the reader though the content. An image can also help break up large sections of text giving the reader the opportunity to absorb the information.

Selecting imagery can be difficult mainly due to the fact that people generally don’t have access to library of photographs that are free to use. Many people think it is okay to use images that they have downloaded from the internet, usually finding them via Google images, what they don’t realise is that Google is merely a search engine that scans websites to find images that have your keyword in their title. An image found on someones website will almost certainly be copyrighted to the original photographer and you cannot just ‘pinch’ it to use it on your own material.

To be on the safe side there are a few options available. You could take your own photographs if you feel confident enough, although you will need some knowledge of composition, lighting and resolution to obtain a quality image. You could access in-house resources if you have your own P.R. team or if you are in the NHS a medical illustration department will have professional photographers you could request the services of. There are also free healthcare image websites such as the NHS Photo Library which is a comprehensive resource for the NHS and related social care organisations, providing access to cost-effective photography for use in their communication materials. You can access the website by registering, as access to the library and use of the images is restricted to authorised users only. Log on to: http://www.photolibrary.nhs.uk/

When choosing more than one image ensure your selection compliment each other, you can mix photography with line art but they need to be of the same styling. Avoid using free / cheap clip art with a variety of professional photography and stock images, the NHS guidelines actually say that using clipart is to be avoided altogether as it does not add to the reputation of a professional organisation.

EXAMPLES OF GOOD AND BAD

It may be difficult for the untrained eye to determine the difference between gimmicky clip art and good quality illustrations. Generally anything that cartoonises an image can look unprofessional and therefore not support the right message in healthcare information. Below are some examples that may help:

Bear in mind that although the two images on the right are examples of good illustration the styling is different and you wouldn’t use them together in the same piece of information.

Also try to be respectful when using pictures. Funny cartoons can lighten a difficult or sensitive situation but risk being disrespectful. Humour is subjective and the NHS guidelines say to avoid it unless you can use it in a way that still shows care, respect and professionalism.

Funny approach ...

Simplistic line art and diagrams can be very effective and are often used to support written instructions or used to explain how to use an item. Make sure line weights are not too thin or they will not reproduce well and that any diagrams are clearly labeled.

How to administer colomycin (Colistin) using a Ventstream Nebuliser:

Step 2. Push the tubing into the nebuliser.
When it comes to photography a well taken image can have great impact on a piece of written work. If the photograph is poor resolution, blurred or badly set up then it can produce a negative response and make the organisation look unprofessional. Poor presentation may signify poor quality care from the readers perspective even though they may not conciously know why.

Below are two different images taken of a patient with a member of staff in a bedside setting and some tips on how to improve the overall look. You don't have to be a professional to take a decent photograph, you just need an eye for detail and some basic knowledge.

When taking your own photographs try to bear in mind what is happening inside the whole of the frame and don’t just concentrate the main topic of the image. Remove items that may distract from the main focus or items that have no relevance i.e. the newspaper, coat and empty plastic wallet on the wall. Consider the position of items, for example move the television monitor so it doesn’t look like it is growing out of the nurses head, ask the patient to straighten their leg so that their knee doesn’t appear to be in an odd position.

Look at taking the photo from an alternative angle so that you frame the most important area of the image and make sure that if you have an unsteady hand, rest the camera on a flat surface or tripod so that you don’t get blurred images.

Light the area well, in the absence of natural light indoors try to use the camera flash as this will highlight people's faces and make the image more vibrant.

If a little time cannot be spent making an image presentable then why would the patient believe that the quality of care is of a high standard?

Have a look at the two images below and try to draw up a list of how to improve the poorly taken photograph on the left so it looks a bit more professional and inviting like the photograph on the right. Consider the content, the composition and the lighting.

IMPROVEMENTS:

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After you have chosen or taken your image ensure that you have the appropriate consent from the people used in the photograph. It is preferred that images used in healthcare are of real people – staff, patients, the public as opposed to endless pictures of buildings or equipment.

Did you make a note of the overflowing bin, or the fact the photograph was taken facing the window so that the room and the people in it are in shadow and did you spot the flower growing out of the lady's ear on the left?

In addition one couple are posing for the photo whilst the other couple are ignoring the camera which gives conflicting content and because there are two areas of focus to the image it means your eye is actually drawn to the centre of the photograph which is the blank wall at the back of the room!

It would have been worthwhile making this senario into two separate images, both scenes should be lit up with a flash and any intrusive objects tidied away.
**C = Colour**

Using colour in a design layout should never be random. Colour should be carefully considered as it creates order, importance and balance in a design. You should also choose colour in the same way you choose font style and size, too many colours will look confusing and untidy and certain colours can emphasize important areas. Good colour choices can assist in guiding the reader through the information in the correct order, tips to note are that dark colours are generally seen first and warm colors appear larger and bring items to the forefront more than cool colors.

Decide on the colours for a design before starting or the application will look like an after-thought and the design will not gel. Most colors evoke emotional and psychological implications and this may help you in making a decision.

**Red = hot, warmth, passionate, danger and urgent**
**Blue = cold, calm, sadness, professionalism and quality**
**Green = nature, health, refreshing and friendly**
**Orange = bold, energetic, enthusiastic**
**Purple = royalty, rich and intelligence**
**Yellow = warm, cowardice, and caution**

Use similar colors to create a sense of calm and harmony. Use pure colours alongside tints of that colour to create movement. Use contrasts to show texture and as a way of directing the reader to specific content. Equally, high-intensity complementary colors, placed side by side will stand out and draw attention to an item. Complimentary colours are two colours opposite one another on the color wheel (see Appendix A).

To bring depth and richness to a design you can add a single color to a black and white photograph (called a duotone) or substitute a different color for black in a two-color job.

**C = Composition**

Consistency is fundamental in design and composition. It doesn’t mean everything needs to look the same but try having common features throughout so elements of a document or layout look like they belong together. For unity in layouts try creating a grid with consistent measurements, use rulers so things line up (see Appendix B). Be aware that although consistency helps clearly communicate the message you are conveying sometimes you need to break this unity up with variety to hold the readers interest in the design.

Every good design should have a clear focal point so that the reader knows where to begin. If you create dominance in a layout by having a strong contrast between elements this will get the point across more clearly. You can then guide the viewer through the rest of the layout by creating a hierarchy using colours, shapes and size of the other items on the page. Separate the most important part of the design and group together the less important parts and try not to have more than three levels of importance as this will confuse the viewer.

In western cultures most people read from the upper left corner of a page, work across to the right and then down to the bottom left finishing at the bottom right, so consider this in the placement of objects.

Don’t make the mistake of using every bit of space on a page, “white space” is effective so use it. A message is clearer if it isn’t competing with other elements on the page. Also think about spacing and margins between objects so that items aren’t crowded.

The final element to address is the balance of the design. A well-balanced layout will prevent some items dominating the overall design. If you choose a layout that is symmetrical your layout will appear static and therefore evoke feelings of formality. If you want your design to appear dynamic and modern then choose an asymmetrical layout. Use a variety of sizes and shapes and make good use of the white space, this will create a more informal look. Lots of non-designers use a mosaic approach and scatter the page with too many items. The right information is not only monetary but it could carry a cost to the patient’s health.

For electronic designs it is easier to update content without incurring expensive printing costs but ensure that things like a website or an interactive PDF is the correct medium for your target audience. If your product is not reaching your right audience then all that money spent on design is wasted. A design has to be effective to be worth the money.

**C = Costs**

Taking everything I have written into consideration is all very well but usually the overriding factor in design production is cost. All the decisions you make at the start of a project need to take the cost of production into account.

If you are using a professional design agency bear in mind their prices, if the project is complex it will take more time, also, is your content finalised - more proofs due to amendments equals more time. Check that the final version is correct, the cost of a design containing the wrong information is not only monetary but it could carry a cost to the patient’s health.

If the design is to be printed consider factors such as the type of paper, the weight of the paper (ensure it is thick enough to prevent show through), the size, the coating (choose matt over gloss for easier readability), and whether it is black and white or colour. All these elements affect the price and should be decided on before a design is started.

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A color circle, based on red, yellow and blue, is traditional in the field of art. Sir Isaac Newton developed the first circular diagram of colors in 1666. Since then, scientists and artists have studied and designed numerous variations of this concept. Differences of opinion about the validity of one format over another continue to provoke debate. In reality, any color circle or color wheel which presents a logically arranged sequence of pure hues has merit (figure 1).

There are also definitions (or categories) of colors based on the color wheel. We begin with a 3-part color wheel (figure 2).

**COLOUR HARMONY**

Harmony can be defined as a pleasing arrangement of parts, whether it be music, poetry, color, or even an ice cream sundae.

In visual experiences, harmony is something that is pleasing to the eye. It engages the viewer and it creates an inner sense of order, a balance in the visual experience. When something is not harmonious, it’s either boring or chaotic. At one extreme is a visual experience that is so bland that the viewer is not engaged. The human brain will reject under-stimulating information. At the other extreme is a visual experience that is so overdone, so chaotic that the viewer can’t stand to look at it. The human brain rejects what it can not organize, what it can not understand. The visual task requires that we present a logical structure. Color harmony delivers visual interest and a sense of order.

In summary, extreme unity leads to under-stimulation, extreme complexity leads to over-stimulation. Harmony is a dynamic equilibrium.

**Primary Colors:** Red, yellow and blue. In traditional color theory (used in paint and pigments), primary colors are the 3 pigment colors that can not be mixed or formed by any combination of other colors. All other colors are derived from these 3 hues.

**Secondary Colors:** Green, orange and purple. These are the colors formed by mixing the primary colors.

**Tertiary Colors:** Yellow-orange, red-orange, red-purple, blue-purple, blue-green & yellow-green. These are the colors formed by mixing a primary and a secondary color. That’s why the hue is a two word name, such as blue-green, red-violet, and yellow-orange.
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