



The Dave Foord guide to PowerPoint

I am a huge believer in the opportunities that PowerPoint can bring to a tutor or presenter, and the benefits that it can bring to the learning experience. These notes are a series of suggestions, based partly on personal opinion, but mainly on considerable experience both using PowerPoint, and running training sessions in its use educationally. A lot of the things mentioned in these notes, are derived from accessibility guidance. In the case of PowerPoint, producing presentations with high levels of accessibility is almost always beneficial to all learners, not just those with disabilities.

There may be differences between these notes and other similar documents. They are as the title suggests, the set of principles that I generally adhere to and I am sharing them here for the benefit of others. It is important for anyone using PowerPoint, to create their own styles, ideas and effectively their own guides to PowerPoint, (even if they never write them down).

It is important to remember that these notes are designed to be a guide not a rule book. There are times when some of the suggestions in these notes do not have to be followed to the letter. Hopefully these notes will help people think about the issues identified, will help people to make informed decisions about when to follow these notes, and when not to.

This resource is not intended to provide the 'technical' instruction for the use of PowerPoint, instead it is aimed at focusing on the learning and teaching effects of different PowerPoint behaviours and decisions. There are plenty of books or Internet sites that will provide the technical instructions, not covered here.

The next page, is a contents page, which has been designed to act as a single page reminder of some of the key points. More detailed explanations can be found later in this resource.

I hope this resource is useful, and helps improve the standard of PowerPoint presentations and their uses.

Dave Foord

A6 Training and Consultancy Ltd

16th December 2007

The Dave Foord guide to PowerPoint – summary sheet

Presentation technique	3
Is PowerPoint the best method of delivery?	3
Don't talk to the screen	3
Making the screen go black or white	3
Use the built in pens and highlighters	3
Use left cursor key to move back a slide.....	3
Introducing Active (rather than passive) learning	4
Set the students a task – possibly integrating a timer	4
Use editable text boxes.....	4
Introduce a competition.....	4
Creating non-linear presentations	4
Colour combinations	5
Avoid red/green	5
Avoid red/blue	5
Contrast between text and background	5
Be prepared to change colours at the beginning of session	5
Don't use inbuilt 'slide designs'	5
Fonts	6
Sans serif.....	6
Don't use Times New Roman	6
For an average screen font size 28 is a good 'minimum'	6
How much text, and what to do with it.	7
6 lines maximum	7
No more than 10-12 words per bullet point	7
Lots of slides = lots of sleep!.....	7
Use sentence case	7
Issues with animating text.....	7
Emphasising text	8
Use Bold for emphasis.....	8
Use bigger text for emphasis	8
Use colour for emphasis	8
Avoid italics	8
Avoid underlining (except hyperlinks)	8
Images	9
When resizing, use corners	9
Clipart OK - but ensure are relevant	9
When putting a presentation on to the internet 'compress images'.....	9
Master Slide	10
If using a logo on every slide, add it to the Master Slide	10
Use slide numbers	10
Printing	11
Printing handouts	11
Printing in Black and White	11
Printing selected slides	11
What and when to give handouts?.....	11

Presentation technique

PowerPoint like any other learning technology may make a good lecturer better, but will almost certainly make a bad lecturer worse. The pace of delivery, the use of humour, audience participation are all far more important than the actual PowerPoint file.

Is PowerPoint the best method of delivery?

Some people believe that a 'lecture' is only complete if everything that is covered is in the PowerPoint presentation.

Although easy and convenient, this does not always lead to good learning - would other methods (class discussion, pen and paper exercises, watching a video clip etc.) be better for parts of the session?

Don't talk to the screen

One consequence of using PowerPoint is it can encourage the presenter to face the screen, not the audience. This becomes harder for the audience to hear, as well as losing visual clues and body language from the presenter.

If the presentation environment is set up ideally, the presenter will have a view of the presentation in front of them (e.g. a laptop screen) - so they can continue looking forward, not at the screen.

Making the screen go black or white

If you are in the middle of a presentation, and you want to remove what is on the screen from view, pressing Ctrl and the letter B - will make the screen go black, or Ctrl and the letter W to make it go white. When you want to resume, pressing any key or a mouse button will return you to the presentation.

Use the built in pens and highlighters

If you are in the middle of a presentation, and you want to highlight key words, or parts of an image, there are some pens and highlighter tools that you can use. If you hover the mouse in the bottom left corner of the screen, there should be a very faint picture of a pen that can be used for this purpose.

When you exit the presentation, you will be prompted as to whether you want to keep or discard your annotations.

Use left cursor key to move back a slide

If in the middle of a presentation you need to move back a slide or 2, this can easily be achieved by pressing the left cursor key on the computer (or the right mouse button).

Introducing Active (rather than passive) learning

Possibly the single biggest problem with PowerPoint is that it naturally lends itself to passive learning (e.g. the learner just listening and not actual doing).

There are ways to make a presentation more active, usually this is quicker for the tutor to prepare, and creates a far more powerful form of learning

Set the students a task – possibly integrating a timer

The easiest option is to set the students a task, or question to answer. This could be individually or in small groups. One way to keep the audience focused, is to set them a time limit (e.g. 2 minutes, or 5 minutes) – which can be aided with the use of a PowerPoint timer.

http://www.a6training.co.uk/resources_powerpoint.php

Use editable text boxes

It is possible to create text boxes in PowerPoint, in a way that they can be typed into during the presentation. This allows the presenter to engage the audience, and make use of their skills and prior experiences. This works especially well if used in conjunction with a wireless keyboard that you can pass around the audience. Although they can be a little tricky to create. Some pre-prepared ones that can be easily copied into a presentation can be found at

http://www.a6training.co.uk/resources_powerpoint.php

Introduce a competition

Breaking a session up into smaller chunks of learning, is much better for concentration spans, and retention of information after the session. Many learners will respond to some sort of friendly competition – e.g. a quiz. One way of scoring such a competition is to use score ladders. These are visual representations that show the score of up to 6 different teams on the screen. These can again be copied into a presentation, from http://www.a6training.co.uk/resources_powerpoint.php

Creating non-linear presentations

A simple technique that allows the audience to influence the session, is to create a non-linear presentation. This is achieved by creating a menu of topics to be covered within the session – this could either be a list, or a diagram. The items in the menu, are then hyperlinked to the relevant slides within the presentation. You can then ask the audience which topics they want to cover in which order – all the presenter then has to do, is click on that item to go to that part of the presentation. Once completed – return to the menu, to choose the next topic.

Colour combinations

Getting the colour combinations right can be the making or breaking of a presentation.

Avoid red/green

Red and green are often the colours that people with colour blindness have difficulty distinguishing. The biological reason for this, is that the cones at the back of the eye responsible for detecting the 2 colours are very close together, and as such messages from these receptors to the brain often get 'confused'. Even people that aren't colour blind will often find red text on green background (or vice versa) hard to read.

Avoid red/blue

Red and blue is not as obvious as the red/green problem. Some combinations of red and blue are clearly hard to read (e.g. dark red on a dark blue background), but other more legible combinations (e.g. red on light blue background) can still be problematic, because red and blue are at opposite ends of the light spectrum, the eye has to keep adjusting between these 2 extremes. For short periods of time, this is OK but for longer periods of time (e.g. the length of a lesson or lecture) the eye can become tired, making learning more difficult.

Contrast between text and background

The most important colour consideration, is having a contrast between the text and the background - e.g. dark text on light background, or light text on a dark background. In some environments, especially when projecting onto a reflective whiteboard, having black and white (which is the maximum contrast possible) - may be too 'stark' for some people's eyes, in which case using pastel shades like ivory (cream), and a dark colour like dark blue, may be less harsh, and easier for some to read.

Be prepared to change colours at the beginning of session

When you set up in a room, if the colours don't work due to the reflectiveness of the board, the quality of the projector or the lighting in the room; don't be afraid to change the colours. If you have used the Master Slide this is very easy.

Don't use inbuilt 'slide designs'

PowerPoint has many inbuilt designs, which a lot of people use. The problem with these designs, is once applied it is hard to make slight changes to it (e.g. make background darker due to the light nature of a room). A simple colour background with a logo, or one which uses 2 colours and carefully selected fill effects looks more professional, is easier to adapt, and looks better than the custom designs.

Fonts

Many people don't think about the fonts they use and will just use whatever comes up - although subtle, the differences in fonts can make a huge difference to the effectiveness of a presentation.

Sans serif

Sans serif means 'without serifs' and refers to fonts, that don't have the little tags on the ends of the letters. Sans serif fonts look 'crisper' than serif fonts, and for many people (including some with disabilities) makes a huge difference to their ability to read the text. Arial, Verdana, Tahoma are all examples of sans serif. Comic Sans is another commonly used font, and is popular with certain groups as things like the letter 'a' looks like a handwritten 'a', however some people think it looks a bit 'childish'. It is all down to personal opinion, and judging the audience that will be viewing the presentation. These notes are written in Arial. The other fonts mentioned look like this

Verdana
Tahoma
Comic Sans

Don't use Times New Roman

The commonest serif font is Times New Roman, especially if text is copied in from word, The serifs in Times New Roman text, has the effect of 'underlining' some of the words, this makes it harder to read, as you lose some of the words 'shape'. There are many people (including myself) who find Times New Roman very hard to read.

Times New Roman looks like this

For an average screen font size 28 is a good 'minimum'

As a guide a font size of 28 makes a good 'minimum', however the key factor is the size of the projection (usually determined by the distance between the projector and screen) and the size of the room (and therefore how far audience is from the screen). In a situation where you have a large projection in a small room, fonts smaller than 28 will be OK, inversely a small projection in a large room may need bigger fonts.

How much text, and what to do with it.

The point of PowerPoint is to provide people with 'bullet points' of the key parts of the presentations, and not to fill the screen with lots of text. Various studies have proved that most people cannot read what is on the screen at the same time as listening to a speaker, so keeping the bullet points short, giving the audience a second or 2 to read them, then starting to talk, makes sense.

6 lines maximum

If you apply the font size of 28 rule, then the most lines you can comfortably fit on a slide will be about 6. If a bullet point wraps onto a second line, then this will count as two lines. If you have more than 6 lines of text on the screen, look at the wording used - could the language be changed to remove some of the words? Would 2 slides be better than 1 slide?

No more than 10-12 words per bullet point

Some research suggests that the optimum number of words per bullet point is 6, others suggest less. Generally the less words the better, but this is not always practical. My suggestion for the 'maximum' length of a bullet point is the length of an average sentence - which is 10 - 12 words. It is up to the individual to work out what is best for them.

Lots of slides = lots of sleep!

The average concentration span of an adult is in the region of 10 - 20 minutes. If a presentation is going to be longer than this, its delivery will have to be very good to maintain the audience's interest. Having a few shorter presentations with other forms of learning in-between is far more effective.

Use sentence case

With typed text, most people prefer sentence case (e.g. first letter capitalised, all others small) as this is the best representation of natural speech. Putting text into block capitals, is generally accepted as shouting, and as such isn't the best style to use in a presentation as can be perceived sub-consciously as confrontational. Also the effect of using block capitals is that you lose some of the shape of the word, which again makes it harder to read.

Issues with animating text

Some people advocate that you should present all the text at once, give the audience a few seconds to read it all then start talking. Others advocate that you should introduce the text one bullet point at a time. Both arguments are valid; it again comes down to personal preference and the nature of the audience.

If animating text simple animations (e.g. appear) is better than complicated ones which can become annoying and can lead to 'sea-sickness'.

Emphasising text

It is often desirable to draw attention to key words within a page of bullet points. There are various ways of achieving this, but some have the consequence of making the text harder to read.

Use Bold for emphasis

The easiest way to emphasise text is to make it Bold (Ctrl-B is a shortcut for this)

Use bigger text for emphasis

Another way to highlight words is to make some words bigger or letters within words bigger especially if they form an acronym; e.g. SCUBA - **S**elf **C**ontained **U**nderwater **B**reathing **A**pparatus

Use colour for emphasis

Changing the colour of certain words, or letters within words, can help them to stand out. However in order to not discriminate against someone who is colour blind, it makes sense to also use bold as well.

Avoid italics

Some people like to use italics to represent quotes or to emphasise key words, however italics can be hard to read, especially for some people with a visual impairment, so its use should be minimal. Rather than using italics for quotes, indenting the text, and placing in quotation marks can be just as effective and easier to read.

Avoid underlining (except hyperlinks)

Underlining removes some of the shape of a word, and makes it harder for some people to read, so it is generally best to avoid this. Titles can be underlined, but often look better when not. Hyperlinks by default will be underlined (and this cannot be easily changed).

Images

Images are better than text in many ways, in memory terms they are easier to recall and therefore the information associated with them is more likely to be recalled. Presentations are more pleasing to look at when visual, and will maintain interest for longer. Images also give the presenter more freedom to change the exact wording that they use in the spoken part of their presentation, allowing them to adjust according to the needs of their audience.

Unfortunately if images are not used well they make the presentation look unprofessional, however a few simple techniques can be learnt to improve their use.

When resizing, use corners

A common mistake that people make when resizing images is they distort them by using the 'handles' on the sides rather than the corners. If the image contains pictures of people this will either make them fatter or thinner than they really are. When resizing any image, it is best to use one of the corner 'handles' as this will keep the image in proportion, as you resize it.

Clipart OK - but ensure are relevant

Some people say that you shouldn't use clipart, based mainly on the fact that many people in the past over-used inappropriate images such as beanies (black squiggly people images). Clipart can have a very valid place in a presentation, as the images are often simple, clear, sometimes humorous, and with more modern versions of PowerPoint if you are on the Internet at the time of adding clipart, it will search Microsoft's online gallery, which is very extensive.

If using clipart, ensure that they are relevant, avoid stereotyping, and don't overuse them.

When putting a presentation on to the internet 'compress images'

Modern digital cameras take photos at very high resolutions, which is great, but these do use huge amounts of memory, and if a presentation contains many such images, its size can quickly run into 10Mb plus - which is more than most VLE or websites can handle.

This however can be avoided, as PowerPoint 2003 (and later) provides you with the ability to compress all the images in the presentation. This will drastically reduce the file size, without you even noticing any difference to the images quality.

For notes on how to do this, visit Dave Foord's Blog (address below) and do a search for PowerPoint. The entry was made on 30th October 2007
<http://davefoord.wordpress.com>

Master Slide

The Master Slide allows you to make changes to the basic slides appearance that will then be reflected on every slide in the presentation. This will save you time, improve the presentations appearance, and make the presentation easier to change. It is also very good from an accessibility perspective, as people can easily change the formatting to a preferred scheme.

If using a logo on every slide, add it to the Master Slide

If you have a logo that you want to appear on every slide, then position this on the Master Slide - this reduces the file size (as image is only stored once, not stored on every slide) and it will always be in the same place. Presentations where as you move from one slide to another the logo appears to jump slightly, when viewed on a large screen can look really unprofessional.

If you want a logo to appear on most but not all slides, and you have a single coloured background, then a neat trick is to put the logo on the master slides as above, and then on the slides where you don't want it to appear draw a shape (e.g. a rectangle) over the logo, and change its colour and line colour to the same as the background. However if you then change the background colour of the presentation at any point, you would have to also change the colour of this shape!

Use slide numbers

When presenting it isn't always necessary or desirable for the slide number to appear on the screen, however when notes of a presentation are printed, it can be useful, especially if the printing isn't stapled and ends up out of order.

A simple trick that can be applied is to use the slide number tool in PowerPoint, but in the Master slide set the font colour of the slide number to the same as the background colour. This way the number won't show up during the presentation, but will show up when printed, if you print in 'True Black and White'. Again if you change the background colour of the presentation, you may want to change the colour of the slide numbers, but it wouldn't be a major problem if you didn't, they would just show up on the screen.

Printing

As much as people talk about the paperless office or the paperless organisation, in reality humans seem to have an obsession with printing things out. When printing a PowerPoint presentation, there are a few key things to think about.

Printing handouts

To print handouts, select File, Print, this will bring up the Print window. Towards the bottom of this window is the option to print handouts, and you can then choose how many per page (e.g. 6 slides per page, 3 with room to add own notes etc)

Printing in Black and White

A mistake that many make is that they print the presentation in the full colour setting even if printing on a black and white printer. This is more expensive in ink, and when photocopied can become less legible.

To overcome this, go to the print window (File, Print) and bottom left corner, under the option of color/grayscale - select 'Pure Black and White'. This prints any text in black, against a white background - some of the highlighting may get lost, but this is the easiest for someone to read.

Printing selected slides

Sometimes you may not want to print all of the slides in a presentation. For example if you have set a question, you may not want the 'answer' slide to be printed. In the print window (File, Print) you can choose which slides to print.

What and when to give handouts?

Do you provide the students with handouts? and if so when? - at the beginning of session, at the beginning of the presentation or at the end of the session. The simple answer is that any of the above may be appropriate depending on the situation. Some say that getting the students to write down what is on the screen (e.g. not giving handouts) is an important part of the learning process, but this can become tedious, and distract from the real learning taking place.

If a presentation is well formed with minimalist bullet points, then the students won't spend ages writing down word for word what is on the screen, but will hopefully learn to add their own notes to the handouts, which is a much more powerful form of learning.

Holding the handouts back until the beginning of a presentation is OK for small group sizes but for large groups, is too time-consuming and distracting.