

3 Choosing and Using Visual Aids

► Advantages of visual aids

Nowadays, audiences are used to seeing visual material during almost any sort of talk or presentation. Listening isn't easy and it helps a great deal if you have something to look at; in any case, human beings tend to remember what they *see* more readily than what they *hear*, and so audiences are grateful for the reinforcement of a good visual aid. People also like looking at pictures – it makes a pleasant alternative to listening – and a change in the way in which information is presented adds variety and interest to the occasion and so helps them to concentrate.

For all these reasons, audiences want visual aids and most speakers provide them. There are, no doubt, some highly experienced, witty and knowledgeable people who can hold an audience's attention by themselves, but it's probably unwise to assume that either we or you are of their number.

If audiences are helped by visual aids, so are speakers themselves. Visual material is prepared in advance, and if it's well-designed and thoroughly checked, it becomes an area of the presentation that the speaker doesn't have to worry about, assuming, of course, that the equipment is available and functioning properly. It also deflects attention from the speaker. This can be bad as well as good: it's possible to use so many visual aids that the audience feels that they are seeing a film or video rather than meeting and listening to a human being. As films and videos can be transported easily from one place to another, they may also feel that it was rather a waste of their time bothering to come to the venue on a particular day at a prescribed time, when they could have watched the whole thing at home at their leisure. On the other hand, many speakers like to feel that occasionally during the talk they are not the main focus of the audience's attention; this is often true at the beginning, and is a good reason for having a visual aid containing the subject and the speaker's name to show as the presentation starts. It may also be helpful in allowing the audience to see how the speaker's name is spelt.

There are other advantages, from the speaker's point of view, in using visual aids. More detail can be shown than could possibly be explained in words; photographs will clarify aspects of the subject which couldn't be shown in any other way, and, if a data projector is used, movement and sound can be included. The key message will be reinforced, and this is an advantage for the speaker just as much as for the audience.

During your course, you are likely to be using the two main forms of visual aid equipment, the overhead projector and the data projector, and we'll look at both later in this chapter, together with some of the other forms of visual information that you might need to use, such as handouts and demonstrations. Incidentally, you may hear people refer to a presentation using computer-generated visual material and a data projector as a 'PowerPoint presentation', even if the computer package they're using isn't Microsoft and so isn't PowerPoint. It's just become the general term, in the same way as people call a vacuum cleaner a 'hoover' even if it's some other make. However, before we get into the details of the equipment you're going to use, we need to look at when and where you might use visual aids of any sort, and what you need to remember in preparing them.

Inappropriate visual aids

Are there any times when visual aids are not a good idea? We've mentioned the problem of too many, so that the speaker and the message are overwhelmed by the visual material. Poor quality visuals are distracting and let down the whole occasion: people are used to high-quality – broadcast quality – visual material and are disappointed if they are offered anything less. This is especially true of visual aids which are so unclear that they fail to convey any message at all. If photographs are under or overexposed, colours look indistinct or the print is too small (see p. 37), the visual aid will fail to make the right impact and will leave the audience wishing that the speaker had been more aware of their needs. Irrelevant visuals are even worse. Occasionally, speakers feel that they can 'cheer up' a difficult or potentially boring subject by showing pictures which are pleasant to look at but not in any way relevant to the message. At worst, these can even be cartoons. This is clearly unprofessional and profoundly irritating to an audience that has taken time and trouble to come to hear a serious subject discussed.

As visual aids are so important, there's sometimes a feeling amongst inexperienced presenters that every point made has to be shown on the screen. This can result not only in too many, but also in unnecessary and rather patronising visual aids: a real-life example is of a group of management students who discussed the results of a questionnaire they'd carried out. 'About a quarter of people said yes', they explained, 'and about three-quarters said no'. This was clear enough, but on the screen appeared a pie chart, with

two segments, showing one-quarter and three-quarters in different colours, with a key underneath. The intention was a good one, but there's no need for a visual aid if the point has already been made and understood.

When to use a visual aid

The decision about if and when to use a visual aid depends to a certain extent on the occasion and the constraints imposed by the situation. If you're reading a seminar paper, for instance, you're likely to be sitting at a table surrounded by the group; and it may be quite difficult to leave your place and move to an overhead projector; there's also the probability that everyone won't be able to see the screen easily: people to your right and left will have to move their chairs back and round in order to see. You need to decide whether all this movement is worthwhile. You may feel that it is, in which case you should make sure in advance that the equipment is set up and the chairs are placed so that there's the minimum disruption. If you have several visual aids to show, you might want to group them, if possible, so that the interruption happens only once. You may decide that a handout, with a copy for each person, is much easier to use than a more formal visual aid.

On the other hand, a seminar presentation, when the presentation techniques themselves are being assessed as well as the treatment of the subject, might well be an occasion for using a number of visual aids. If you are studying science or engineering, you will almost certainly rely heavily on visual aids, and you will be assessed on these as well as on other aspects of your work. A poster presentation, for instance, will involve you in the design and use of high-quality posters (see pp. 51–3), while a project presentation will require you to illustrate your work regularly throughout your talk. We'll discuss this in more detail later.

However, there are some points in most presentations at which a visual aid is appropriate. Some of these occasions are more common in arts-based and others in science and technology-based subjects, but the division isn't absolute, of course, and this list certainly isn't exhaustive:

- An introductory slide, showing your name(s), the title of your talk and the date. This makes a useful introduction and gives the audience something to look at as you start. You may wish to repeat this introductory slide at the end of your session.
- An outline of your talk. This is likely to be a list of points, either numbered or bulleted, which the audience can note in order to have an overview of what you are going to say.
- A general view before you look at the detail. This would apply to a slide of a painting, a management hierarchy chart, a building site or an electronic circuit block diagram.

- Detail which you're going to discuss, and which the audience needs to see in order to be able to follow what you say. This could, for instance, be a line of poetry, a bar of music, a small part of a painting, a line drawing of a component or the seed of a plant under a microscope. Sometimes, such details may be too small to be seen in the normal way by the naked eye.
- Movement which you need to describe. This might be the growth pattern of a tree or the possible spread of fire through a building. The data projector (see pp. 45–8) is particularly good at showing such development.
- Relationships which you need to discuss. This might involve a family tree, a flow chart or a map of a country showing population distribution or climate change.
- Simple mathematical material, such as a table of figures or a graph. However, if such material becomes complex (see p. 48), it ceases to be useful as a visual aid.

There are no doubt hundreds of other examples, but we've suggested a wide range of possible visual aids and also some of the limitations to their use.

Visual aids preliminary checklist

You are preparing a presentation and trying to decide which visual aids you will use. Consider the following:

- What equipment is available?
- Do you know how to order it and, if necessary, collect it and set it up?
- What visual aids will other speakers be using?
- Is the room suitable for visual aids, in terms of size, lighting, blinds and so on?
- How long is your talk? This will to a certain extent dictate the number of visual aids you use.
- If you are using a data or overhead projector, what colours will you use for background, lettering and so on? Will you have a coloured background?
- Will you have an introductory slide, with your subject and your name on it?
- Will you show a bullet point list of the contents of your talk?
- At which points of your presentation will you and the audience need to see a diagram or other illustration?

Continued

- Do you want a summary slide at the end?
- Allow at least 20 seconds per slide; how will this affect the amount of information you can give the audience?
- Do you need to reproduce any of your slides as handouts to give to the audience or the person marking the assignment?
- If your chosen equipment fails, what will you use as backup? This is particularly important if you're using a data projector.

Designing a visual aid

Whatever form of visual aid you choose, there's one overriding criterion: everyone in the audience must be able to see everything you show. This sounds obvious, but inexperienced speakers sometimes crowd their material on the screen, whether it's words or diagrams, until it's impossible for the audience to see the details. Let's look first at the potential problems of words and then at punctuation, colour and backgrounds.

Font size and style

There isn't space on a screen for many words if they're a sensible size for viewing. In a seminar room, you can probably use a font of about 20 point and the audience will be able to read the words; in a large lecture theatre, you may need 30 point or even bigger. This means, incidentally, that it isn't wise to copy printed material onto acetate for use with the overhead projector: almost certainly, the print size will be 12 point, far too small to be read even by people sitting near the front. There's also likely to be too much on the page. Look at a typical page from a textbook or a report. It has hundreds of words and also irrelevant details such as a page number. The most important sentence on the page might come down near the bottom, where it would hardly be noticed if it were projected. If there's a diagram on the page, it will be small, with a label that might be 10 point italic. It isn't sensible to try to use such a page as a visual aid, although it happens more often than one would expect.

There's another consideration, which is the style of font you choose. If you look at one of the most common fonts for documents, Times New Roman, you'll see that the letters are smaller than in some other fonts and have serifs, the small extra strokes or curls at the edges of the letters. These help the reading and look attractive on the page. However, a visual aid needs to be as simple and uncluttered as possible, so a sans-serif font, in which the letters don't have the serifs, is clearer when it's projected. Arial is a good choice. You may want to make a heading look more interesting by using 'shadowed' or outline letters, or a more elaborate font. Be careful! It's easy to make your visual aid harder to read, or even oddly childish, by overdoing such techniques. Generally speaking, for your headings use

large bold capitals in the font you're using already, perhaps in a different colour from the rest of the text, and they will stand out sufficiently.

It's perhaps unwise to suggest a maximum number of words on the screen at any one time, as it must depend on the purpose of the visual aid and the size of the room in which it's shown, but 25 is a reasonable number to use as a guideline. This might include four or five words used as a heading, and the rest as a list of points underneath. Bulleted points are usually better than numbered, as they make more visual impact, although there are times, of course, when numbers are needed. If you need to use them, don't add brackets or full stops: the numbers by themselves will be clear enough if they're well spaced, and again, you want to avoid clutter.

Selecting the words

Try not to use full sentences on the screen, and never show a long paragraph of writing. You are producing visual material, not a written text, and you must therefore show only what the audience can read easily, which means the minimum of words necessary to give the message. For instance, suppose you are a history student, and have been asked to give a seminar about the revival of monasticism in the Middle Ages, focusing on the Abbey of Cluny. You might want to give your group the following information in visual form, to reinforce your message:

The Abbey Church of Cluny was founded in 1088. It was the largest Romanesque building in Western Europe, and its architecture and decoration were enormously influential. It became immensely rich and politically powerful, because of its independence and the eminence and capability of its abbots.

There are 45 words in this paragraph, far too many to put on the screen. This doesn't matter, though, as you are going to tell your audience the details, and all you need to show them are bullet points to focus their attention. You could use a heading with a list of points under it, as shown below.

Abbey Church of Cluny

Founded 1088

- Huge size and fine architecture
- Capable, influential abbots
- Enormous wealth
- Independence and political power

You now have just 19 words and one date on the screen, so you can use a sensible style and size of font in order to project these key ideas. You will be able to enlarge on these details as you talk, for instance explaining the nature and extent of the influence of the Abbey of Cluny, and the audience will be able to use your bullet points as headings in their notes and fill in as much detail as they think is appropriate. You'll see that you have identified the most important words for your audience, so they can concentrate on what you say rather than having to worry about exactly what your message might be. These are important aspects of the speaker's responsibility: clarifying issues and highlighting key ideas for those who listen (see also p. 16).

Punctuation

You'll also have noticed that there's no punctuation in the visual aid version of the example above, although the original passage has normal full stops and commas. Very little punctuation is needed on a visual aid, partly because there won't often be complete sentences and partly because we're simplifying and removing anything which might be thought of as 'clutter' (not that, in ordinary writing, punctuation isn't an integral and essential part of the way in which an author conveys meaning). A few punctuation marks should be used if they're appropriate, for instance a direct question that isn't followed by a question mark always looks wrong, and apostrophes should be used correctly in the normal way. On the other hand, a list doesn't have to be introduced by a colon, and it's rare to need commas unless they affect the meaning of the words. In other words, leave punctuation out unless the result looks odd or is ambiguous.

Colour on the screen

Whether you're using an overhead or data projector, you may choose to have a coloured background for your visual aid and a contrasting colour for the text or diagram. Plain black text on a clear base will be sufficient under some circumstances, such as a seminar paper in which you're showing half a dozen bullet points, but for any occasion in which your presentation skills themselves are important, you'll certainly need to use colour if you want a professional appearance to your work.

You have a choice between using a dark colour for the background and a light colour for text, or doing the opposite: a light background will allow dark coloured text to be highlighted. In practice, it's a bit more complicated. It's essential that the contrast between background and text (or diagrammatic material) is sufficient, but this isn't always clear from the computer screen. Unless you project your image on a large screen, as you will during your presentation, you can't be sure that your colour choice will work. This is especially true if you use two shades of the same colour: dark blue text on a light blue

background can be effective, but you need to project it to be sure that the letters stand out clearly. You also need to make sure that your colours look pleasant together, and again, it's hard to be sure unless you see them on a large screen. Clashing colours, or an unpleasant mix, will distract the audience from important information. A popular colour choice is a dark blue background with white or yellow for the text: this works well and looks attractive.

Once you've chosen your basic colour scheme, don't depart from it without a good reason. The colour you show has to mean something to your audience: if, for example, you use dark blue for background with yellow for main headings and white for the rest of your text, the audience will very quickly get used to this pattern. If you then use other colours, they will ask themselves why; if the answer's clear (for instance you want to highlight a particular number in a small table), they will accept it, but if it isn't, the question can become a major distraction.

Consistency is also important, especially if you're part of a group presentation. If one of you uses red for a particular section of a map, for instance, then everyone who shows the same area must use red. In the same way, be consistent yourself and agree a consistent format between the members of the group in such details as your choice of style for headings and the colour of the border if you use one.

Colour can cause problems, too, especially for the high percentage of men who have some colour deficiency in their sight. Obviously, you can't make allowances for the small number who are totally colour blind, but there are some combinations which often present difficulty and which you need to avoid: red and green is the most common. Such problems of colour recognition are, oddly, rare among women.

Some colours simply don't show up well: pink and orange are in this category, while green can look faded and needs to be used with care. A patch of red is effective, but writing or fine line drawing in red simply doesn't project sufficiently strongly. This is not what you'd expect, red being a bright and dramatic colour in itself. As a result, people use, say, black for the text and then highlight the key words in red, only to find that the words they wanted to emphasise show much less strongly than their surroundings. Black always projects well, with dark blue almost as good, and brown and purple are generally easy to see.

Once you have a colour combination you're happy with, you can use it whenever you like. If you're using PowerPoint, you can copy your master slide, with its colours, into a new presentation, and you have your chosen colours readily available. This can have a useful side effect. We'll say something later about the need for backup (see pp. 47–8), but if you regularly create presentations with the same colours, you may be able to reuse some of your slides from a previous occasion, as they'll match your new ones.

Backgrounds

We've discussed background colours above, but you may like the look of some of the patterned backgrounds available on PowerPoint or similar packages. They need to be chosen carefully, in the light of your main message. If you're talking about life on a tropical island, waving palm trees in the background might be ideal, but they're not likely to be of much use generally. Some standard backgrounds contain their own traps for the indiscriminate user. If, for example, you choose one which is pale in colour at the top and progressively darker down the screen, you're faced with a quandary: do you use light coloured print, which disappears at the top but shows up well lower down, or a dark print that looks splendid at the top but is hardly visible towards the bottom? If you feel that you've found a colour that works for the whole image, have you allowed for the fact that a diagram may look unbalanced, some sections apparently highlighted while other sections are very pale?

Unintended emphasis can occur with any background that has patterns on it. A popular example is an attractive dark blue with a red bar about two-thirds of the way down on the left-hand side. This stretches about a third of the way across the screen. If the speaker happens to have a word or a number just above this line, it appears to be underlined in red. If the word or number happens to be over the red bar, it may be less clear than other words and numbers on the screen – and the viewer will wonder why.

The overall advice that comes out of a discussion of backgrounds is that, on the whole, a plain colour is safest, and the more technical or scientific the content of your image, the more important it is that nothing should distract from it or distort its message.

Visual aids checklist

Take any one of your visual aids, project it and test it in the light of the following questions. Before you give your presentation, check all your visual aids this way:

- If a colleague stands at the back of the room, can he or she see every detail on the screen?
- Is there material which is irrelevant and should be removed (such as a slide number or the source of a diagram)?
- Does the slide need to be corrected (for instance because of a spelling error) or updated (for instance because a statistic has been superseded)?

Continued

- Is there unnecessary punctuation on the slide?
- Has any essential punctuation been left out?
- Is the colour combination pleasing to look at?
- Has the message been distorted because of the background or layout of the slide?
- Is every diagram correctly and clearly labelled?
- Have you shown more detail than the audience can easily follow?
- Is all the lettering big enough to be easily read?
- Are there too many words on the screen?
- Have you shown long sentences or paragraphs which are difficult to read?
- Is this slide consistent in style and layout with any others that you will use?
- Overall, is your message clear, easy to understand and attractively presented?

► Visual aid equipment

Nowadays, you are likely to use one or both of two types of visual aid equipment: the data projector, operated from a computer (often a laptop) through the projector itself onto a screen, and the more old-fashioned overhead projector, with acetate slides that you can produce by photocopying from a printed source, or make by using PowerPoint or a similar package and printing onto special acetate. Hand-drawn overhead slides are unlikely to be acceptable nowadays. There are other forms of visual aid, such as handouts and demonstrations, which we'll discuss later in the chapter.

Before you spend time and effort preparing visual aid material, check with your tutor or lecturer to make sure that you know exactly what is appropriate. Is the assignment assessed and, if so, is the visual content evaluated as part of that assessment? How many images are you likely to show? If there are only one or two, it might be better to give handouts than to use complex technology. Do you have to arrange your own equipment or will the lecturer provide it for you? If you book it yourself, how much notice should you give? Remember, too, that you need to have the equipment available for rehearsal as well as for the performance.

Adequate rehearsal is essential. Too often, people practise the talk itself, but leave preparation of the visuals until the last minute; they may even look slightly surprised in front of the audience when they see the final version on the screen for the first time. You need to know exactly what the enlarged image looks like and where to find the detail, so that you can use the pointer