How to give an effective presentation using PowerPoint

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Background

Presentation of teaching or research findings is an important aspect of the work of healthcare professionals.[1] Many nurses are regularly involved in teaching groups of professionals and are increasingly expected to present their work at national and international meetings. In this technological age, electronic presentations have become the norm and are almost universally expected, with PowerPoint being the most commonly used computer based presentation package.[2] The advantages of such presentations include cost savings, portability, easy updating capability and multimedia functions such as animation, video and sound.[3] Although multimedia technology, in principle, may help speakers deliver more effective presentations,[4] inappropriate use of PowerPoint features can downgrade the quality of a presentation.[1] The effectiveness of any lecture does not depend predominantly on the quality of the visual

Summary

Giving presentations is an important aspect of the healthcare professional's role, with the use of PowerPoint often being expected. Although multimedia technology may aid the effectiveness of a presentation care is needed to ensure that inappropriate features do not distract the audience from the key message. The skills required to give effective presentations can be learnt and improved with practice. This article provides guidance for those wishing to improve their skills and focuses on the importance of preparation and practice before the event. It also provides advice regarding design of the PowerPoint slides and dealing with 'question and answer' sessions.

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Key words

Presentation; PowerPoint; lecture; presentation skills

aids, but on the ability of the presenter to communicate with the audience.[5] Indeed, a stunning visual presentation will not mask poor content.[6] Identify the message that you want to get across to the audience and consider how you can best achieve this while clearly explaining your points and maintaining the listener's attention.

An awareness of how audiences rate presentations may also be helpful. Three key factors are considered to be crucial in describing audiences' responses:
- The audiences' assessment of how well researched and informative the presentation seemed
- The design of the multimedia presentation, including how creative and imaginative it was
- How engaging and entertaining the audience felt the experience to be as a whole.[4]

Cognitive theory draws attention to the importance of the relationships among the different media used during presentations, particularly with respect to the cognitive processing channels used by the audience.[4] Mayer presents a model of multimedia learning based on the proposition that learning is based on the processing of information received through two separate channels with different characteristics.[7] One channel processes auditory or verbal information, the other processes visual or pictorial information. Learning takes place through the active construction of knowledge from an interaction between information received through these channels and existing knowledge stored in the learner's long-term memory. Interaction between the two channels is typical of this process,[4] therefore presentations using both verbal and pictorial information can be highly effective, and this can be achieved by using PowerPoint.

This article provides guidance for those seeking to improve their presentation skills, emphasising the need for practice before the event and the importance of clear, well-designed slides. The skills required to give effective presentations can essentially be learnt and improved with practice.

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Preparation

Once you are aware that a presentation is required, whether for a small group or a national meeting, it is worth starting to plan your talk well in advance. Initially it is important to consider the size and background of the audience you will be addressing. The expected size of the audience will to some extent influence your style of presentation, particularly in terms of how interactive the presentation may be. It is also helpful to have some knowledge regarding the range of disciplines or background of the audience and their likely awareness or experience of the topic you will be discussing. This information will help when planning the 'level' of your presentation and can aid you in ensuring that your presentation is tailored to the learning needs of the audience. It is appropriate to start your planning early in order to ensure that changes can be made as necessary; it also allows time to practise and revise your talk.

The best presentations are rehearsed, not so that the speaker memorises the talk but to facilitate his or her ability to interact with audience and portray a relaxed confident style.[5] Practising your talk in front of others allows rehearsal of the timing and highlights areas where you may need to revise your phrasing in order to explain difficult topics with greater ease. It is very important to ensure that your presentation is kept to the time allocated and it is only through practice to a 'mock' audience that this can be tested accurately. Reading the slides aloud to yourself does not give a true reflection of the way in which a talk will be delivered to a 'real' audience, so enlist the help of colleagues who are prepared to listen to your talk before the event. This preparation also enables you to become completely familiar with the slides,

so you are aware of what is coming next, and may also help to reduce nerves on the day. Practising in front of others also allows constructive feedback regarding your style, pace of the presentation and ease of following the slides, as well as highlighting possible questions. It is important to avoid reading from notes or memorising the entire presentation as this reduces the possibility of a relaxed, conversational style which is easiest for the audience to listen to.

Further preparation may also include visiting the room to be used (this may be the same day if the presentation is at a venue away from your usual workplace) in order to test any equipment and become familiar with the setup for controlling the slide display. Be aware that many factors can affect the actual display of your presentation; this may include different versions of PowerPoint, computer settings or projectors. Ensure that you have saved your presentation onto multiple media, e.g. memory stick, laptop and/or CD-ROM in case there are technical difficulties. Checking your presentation in advance will allow you to make any relevant changes as necessary. It is helpful to contact the local organiser beforehand (if they have not contacted you directly) to check on the software and hardware available and their compatibility with your slides.

Production of slides
Slide template
Care should be taken over the selection of a slide template, as this can either enhance or downgrade a presentation. Elaborate templates may be distracting and can also decrease the visibility of the text (Figure 1). A plain background allows the audience to concentrate on the text and not the pattern behind it. Suggestions for the template include a plain white
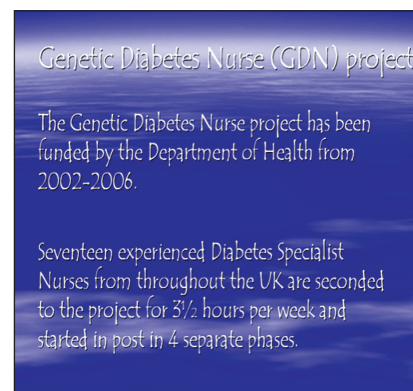
Figure 1. An elaborate background can distract from the text. Note the disadvantages of using complete sentences
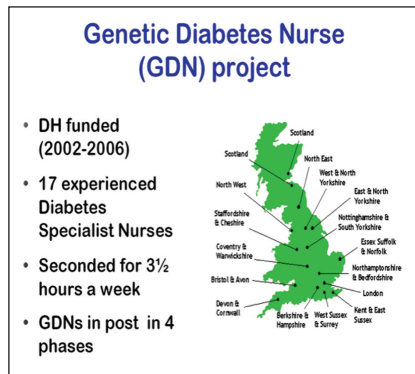
background, with dark blue text for the headings and black for the main text, or alternatively a royal-blue background, with yellow for the headings and white for main text, both of which provide contrasting colours for a clear display that is easy to read. It should be borne in mind that some colours don't project well and red and green text should be avoided for those with colour blindness.

Fonts
Fonts should be chosen for their ease of reading and clarity at a distance. You may consider using 'bold' text for the entire presentation as this may project more clearly. Arial Rounded MT bold is a popular choice for presentations. The size of the font should be large enough to ensure those at the back of the room can still clearly read the text; size 36–40 is recommended for the main heading and 28–32 for the text.

Slide content
The content of your slides is of vital importance and although the usual format would include an introduction, content and summary, you may chose to start with something which is likely to arouse the interest of the audience, e.g. a patient case,

Genetic Diabetes Nurse (GDN) project

- DH funded (2002-2006)
- 17 experienced Diabetes Specialist Nurses
- Seconded for 3½ hours a week
- GDNs in post in 4 phases

Figure 2. An illustration of effective presentation of information

and then return to the background or information behind the case. It is important to introduce your topic clearly, but be wary of providing too much background information initially as this may lose the interest of your audience. It can be useful to have a slide towards the beginning of the talk that indicates the structure of the presentation (i.e. a list of subheadings or sections) and to then use these subheadings during the talk to help the audience to keep 'on track'. If anyone's attention does wander (particularly common during the post-lunchtime slot!), they will soon be able to see which stage of the presentation you have reached.

Another technique to help the audience is the careful use of slide titles. For example, replacing the title 'HbA$_{1c}$ results on insulin or sulphonylurea treatment' with 'Improved HbA$_{1c}$ in patients transferred from insulin to sulphonylureas' arouses greater interest.

A common fault of scientific presentations is the use of too much text per slide.[8] The 'rule of six' has been suggested as a guide, which indicates a maximum of six lines per slide and six words per line.[1] The information on the slide should convey only the main points or key words, without the use of complete sentences or punctuation (Figure 2). The text should provide

some detail which is then expanded by the speaker. This allows the audience to listen to what is being said without trying to read a section of detailed text simultaneously. Each slide should generally be limited to one idea or concept, and use predominantly lower-case letters for ease of reading. Non-standard abbreviations should be avoided, as some of the audience will attempt to guess what they mean, or lose interest. Speakers should not apologise for anything in the presentation; if a slide is hard to read or understand it should not be used.[1]

One tip to help keep the audience's attention is to use the 'custom animation' feature which allows you to introduce new text on the click of the mouse cursor rather than showing all the text on the slide at once. This can be very effective and allows the audience to concentrate on one section of text at a time. The means of 'entry and sound' chosen should be carefully selected, as some options can be distracting. Selecting the 'appear' option is preferable to the 'fly-in' or 'spin' options. There are many choices but consider that some may detract from what you are saying. Another useful option is the 'dimming' option which can be used when discussing a number of points; in this case the previous points are dimmed, so only the current point is highlighted, allowing the audience to concentrate on the particular issue you are discussing.

Pure text slides should be kept to a minimum. The use of tables, diagrams or graphs help break up a presentation and can be useful to allow explanations in a different format. Any figures should be clearly labelled and the speaker should take the audience through the slide or table highlighting the key elements. Images are also an important part of the educational content of a presentation and can

dramatically enhance its effectiveness.[1] Images should be of good quality to ensure that they project clearly; any identifiable information should be removed. Consent is required if using images of patients, although some presenters choose to cover the eyes with a black box to reduce the possibility of identification. Graphics should only be used if they are relevant, but can add humour to the presentation.

Anecdotes or stories can attract the audience's attention but are most effective when illustrating a principle to be taught.[5] They can also improve the audience's ability to relate to a situation and may increase the humorous content. Video clips are increasingly being used, for example clips of patients describing their experiences, and can be highly effective and increase the audience's recollection of the presentation. Care must be taken to ensure the quality of the video clip and that the volume is suitable for the room in which the presentation will take place. When using video clips for small groups I have taken along audio speakers which can be attached to a laptop; for large lectures most venues have speakers already installed, however do check that the video clips play correctly and that the volume is appropriate before the presentation.

The presentation

How a speaker appears to the audience will have an impact on their reaction to what is presented. It is therefore important to dress appropriately. A smart appearance, usually a suit, is recommended for national or international meetings and conferences. A smart but slightly less formal appearance may be acceptable for local presentations.

The stance and gestures used are also important and should

be practised before the final presentation. All speakers should stand for their presentation, even when addressing a small group, as this promotes a more professional style. Any gestures should be natural and fidgeting or shuffling minimised as these are distracting. You should always face the audience and aim to make eye contact by moving your eyes across the room. Even if the lights are dimmed you should maintain this approach.

Try to use a natural conversational tone as this helps to engage the audience. Use a pace which is slow enough for the audience to hear and assimilate what has been said. This requires practice as it is common to rush when nervous, making it difficult for the audience to interpret the information. (This is especially important when the speaker is presenting in their non-native language). In larger auditoria microphones may either be static and based on the podium, or clipped to the speaker's clothing. When using a static microphone it is essential not to turn around to look at your slide while speaking, as the audience will no longer be able to hear you.

When moving from one slide or section of text to the next be sure to press the down-arrow key or mouse cursor firmly once. If you are nervous you may press the button lightly and then press it again before it is necessary and find you have progressed two slides at once. If this happens don't panic, just press the up arrow or right-hand mouse key to return to the previous slide.

When using visual aids, for example tables or graphs, ensure that you orientate the audience with an adequate description, point out the relevant findings and allow time for the audience to assimilate the information before moving on.[5] Using a laser pointer or mouse cursor can be helpful when describing tables or graphs, but movements should be purposeful. If you think your hand is likely to shake too much then using a mouse cursor may be preferable and also allows you to continue to face the audience at all times.

Be aware of the time you are taking to ensure that you maintain an appropriate pace. Although it may appear to be advantageous to finish early this suggests to the audience that you are unprepared and allows more time for questions at the end. Conversely, if you run over time the audience is likely to lose attention very quickly and your 'take-home message' may be lost. It is especially irritating if you run into 'coffee' time and it may also make you unpopular with the following speakers.

Audience participation is important during presentations, but is more difficult to manage if the audience is large. In smaller groups involving the audience in discussions is helpful in assessing whether the audience understands the concepts and also helps to break up the session and maintains the audience's interest. Participation may differ in audiences with a different language who are concentrating to understand; it does not necessarily indicate lack of interest. A lack of participation may also be due to difference in culture, where asking questions and participating in a lively discussion is not the norm, especially where different members of the hierarchy are together in the audience. Aim for an effective finish to your presentation rather than a long list of acknowledgements. It can be useful to summarise the take-home messages, and for smaller audiences printed handouts of the slides may be helpful.

Question-and-answer sessions

Dealing with questions from the audience following the presentation can be daunting for the novice presenter. Think ahead of questions that may be asked and during practice sessions ask your 'mock' audience to pose questions at the end. This will give you practice in dealing with questions and will allow you to prepare some possible answers in advance. Often you will have been asked to speak as you have particular expertise in an area, and you should not feel daunted by questions which are asked out of genuine interest or to seek clarification. Dealing with questions effectively can be a key means of promoting a dynamic closure and providing a consistent reinforcement of your message.[9] Do not be afraid to ask the questioner to repeat or clarify their question; if you did not understand it is likely that members of the audience did not understand either.

Discussion

Three factors provide a framework which speakers may consider when designing a presentation. The speaker must decide on the balance appropriate for the purpose of the presentation and the audience concerned. In particular the speaker must decide how much emphasis should be put on:
- Ensuring that the presentation is well researched and informative
- High-quality design including the use of multimedia
- Entertaining the audience and making the experience enjoyable.[4]

Improving the visual design of your presentation should achieve four basic goals in achieving your message by:
- Ensuring legibility
- Reducing the effort required to interpret the message
- Increasing the viewer's active engagement with the message
- Focusing attention on the most important parts of the message.[10]

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When you next attend a presentation view it with a critical eye and consider other lectures you've attended; reflect on what went well and what could have been improved as this will ensure that you learn from other presenters. Basic techniques for improving your presentation skills can be learnt and refined with practice. Giving presentations can be a rewarding experience; not only are you sharing your own knowledge in a particular subject area but you are potentially increasing interest and awareness among others and making new contacts.

Conflict of interest statement:
None

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