This chapter highlights key points about the audience that need to be considered before you attempt to plan the presentation in detail; it also gives guidance on how to overcome the first sign of nervousness resulting from anticipation of who might be coming to hear you speak.
Audience
Understanding what audiences expect

When planning a scientific presentation, it is worth thinking about audience expectations from the outset. If you empathise with them, you will ensure that the way you construct and deliver your talk will satisfy their needs and avoid creating antagonism towards you.

Although we do not normally think of the financial implications for our audience, this point has been raised forcefully in a piece of correspondence to *Nature* magazine by Judy Ford from the University of South Australia [1]:

> Speakers, it is likely that my registration fees have contributed to your travel, so I expect you to demonstrate that you have given a lot of thought to your talk and prepared each slide carefully rather than simply recycling it. I have come to listen to you, the expert, so I expect to enjoy a well-organised, possibly brilliant, presentation, in which creative visuals amplify your words and enhance my understanding.

To which we would say, ‘Amen.’

Audiences have a fixed idea of the time allotted to a talk and will rarely tolerate a time overrun.

Plan to keep within a specified time by controlling the number of slides used and by rehearsing the talk.

Imagine yourself listening to your own talk

This introduces the idea of a presentation as a selling exercise. Successful marketing is based on finding out what the customer wants and identifying benefits for them. Just trying to sell what you think the customer ought to want rarely works. So, if you put yourself in the shoes of the audience, you will be able to tune your talk to their needs and interests. This requires some research beforehand. If you are invited to give a seminar at another institution, you should find out something about the department or company that you will be visiting and tailor your talk accordingly. Similarly, for conferences, a review of the programme will help you to present your talk in the correct context for the audience. For example, there may be several presentations that cover the same subject material, so there is a danger of the introductions from each
different speaker saying the same thing. In this case, a different way of looking at the subject background would break the monotony and keep the audience alert.

**Your target audience**

Who will be in the audience for your talk – in other words, who is the talk aimed at?

Most scientists give their first presentation to colleagues as part of their graduate education, and then move on to reporting the results of their work at internal laboratory meetings. Over the course of their subsequent careers, they will be asked to speak at short conference or workshop sessions, and formal seminars, and to contribute keynote conference speeches (generally in that order).

Each of the above stages forms part of an apprenticeship in public speaking requiring, among other things, a sense of the particular needs of each audience. Most of your audiences will be scientists working on similar problems to you; a significant number will have a specialist interest in your work as colleagues or competitors. You may occasionally need to deliver a talk to scientists from totally different disciplines or to an audience without any science training at all. Although every one of the above scenarios requires a common standard of presentation and clarity of content, there will obviously need to be a change in emphasis between background material and the research findings.

A specialist audience does not want a long introduction to what they know already and will be eagerly awaiting the data. Since the specialists are likely to be well acquainted with the experimental techniques under discussion, they will probably have strong views about the conclusions drawn from the findings presented. All of these points drive some speakers to make their talks as complex as possible in order to impress their peers, as well as to build a defensive shield against attack. They fire off an unstructured barrage of figures and complex diagrams and often overrun the allotted time for their talk. The result is a talk whose message cannot be properly evaluated, even by the experts whom the speaker is trying to impress.

Good speakers can introduce a subject, even to a specialist audience, without any sense of being patronising or ‘dumbing down’. They do not,
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however, commit the cardinal error in their introduction of using up too much of the time reserved for presentation of the more complex data and their interpretation.

A single exception to this comes to mind: a prestigious biochemist giving a 1-hour seminar in a major US Medical Centre managed to get away with spending the first 20 minutes telling a slightly off-colour joke (something to do with his wife and photographs) totally unrelated to his subject. He then proceeded to dazzle the audience for the remainder of the time with a well-crafted presentation. Although entertaining, we would most certainly not recommend this approach!

Increase the complexity of your material seamlessly as you move into the main body of the talk, allowing everyone to keep up. As with all presentations, variety adds interest, so there will be situations in which a more dramatic introduction may be more appropriate to capture and hold the attention of the audience.

If you scan the audience and find some looking bored, distracted or even asleep, you and your talk may not be at fault.

Some may have personal problems that take their mind off science, have suffered from lack of sleep (after a conference social event perhaps) or may simply look that way even when they’re interested. Ignore these intrusions into your train of thought and don’t let them distract you from your talk.

One department head used to sit in the front row and feign sleep during seminars to deliberately play games with the speaker. He would then ‘wake up’ at the end and ask some highly effective questions – luckily, most speakers were aware of this beforehand.

Delivering scientific talks that are comprehensible to lay audiences can be particularly challenging. People may simply have no idea of the basic terminology, which may be obvious to many scientists; it is very important never to assume prior knowledge. Equally, there may also be some technically literate people in the audience. It can help to satisfy both sides by providing an introduction, explaining that you are aware of the issue and ask the technical people to bear with you while you cover basic material. Unlike our recommendation for most presentations, we
suggest that questions during these talks are acceptable, even desirable; once a listener has lost the thread, it is very difficult to catch up unless a point of difficulty can be quickly clarified by the speaker.

Another point to consider is the age of the audience when referring to political, social or other events in your talk. These comments may be included to make a specific point that you hope your audience can relate to. As time marches on, however, the events of the twentieth century (apart from the obvious ones) may have mostly escaped an audience of young scientists. One example is reference to the British Prime Minister Margaret Thatcher, who left office in 1990, before many young scientists were even born. Of course, the converse is true, so that references to modern pop culture may be lost on an older audience!

Should I worry about who will be in the audience?

A major source of anticipatory nervousness in a speaker is the thought of who might be in the audience for their talk. One of the most common fears arises from having to present in front of friends and work colleagues, as opposed to complete strangers. Presumably, they fear the stigma of self-humiliation in front of people who will be around them for a long time after the talk has ended. At least they will probably never see the strangers again. The techniques described in detail in Chapter 4 on ‘Controlling nerves’ and on the website will help to control this common problem with audiences.

One particular fear (raised frequently by delegates attending our courses) is that of speaking in front of distinguished experts in the audience. This ‘seniority perception’ anxiety is largely due to lack of confidence in the speaker’s own knowledge and ability and the fear of being exposed by ruthless questioning. Although the latter point is covered in Chapter 8 on ‘Handling questions’ and on the website, ‘seniority perception’ anxiety as a specific problem is discussed in the following paragraphs.

Presenting can be daunting to scientists at the beginning of their careers. One reason is because they are afraid of making a bad impression on senior people in the audience who may have a direct influence on their future employment. This is a natural response, particularly if you are faced with a Nobel Laureate, or equivalent, in the seminar audience. Even the accomplished physicist Richard Feynman was taken aback
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before delivering a seminar at Princeton as a young man, when Albert Einstein arrived quietly and sat down in the front row.

Nervousness of this type is, of course, all in the mind. It follows that a change in thinking from negative to positive is required to control it from the outset.

Realise that you should know more about your own data than anyone else

Senior people might be more interested in the science than in you in particular. They will judge the material by the same standards as everyone else, so it is up to you to be as rigorous as possible in your coverage of new data and its interpretation.

Sometimes the presence of audience members with a political agenda can create problems. They may be scientists who are using you as a proxy to fight a war with your supervisor and will be deliberately critical of your talk. The only way to deal with this and ‘seniority perception’ anxiety is to adhere to the following:

1. Make sure the talk is interesting, informative and runs to time.

2. Make sure that you know your material.

In this way, you will bring most of the audience on to your side, probably including the senior people, and in doing so will isolate any individual with a different agenda.

Preparation is all!

A colleague once told the story of how a relatively junior scientist gave a sloppy presentation at an international conference and was humiliated by a major scientific figure with the words: ‘My dear boy, this field is hard enough for the professionals, let alone amateurs.’ This nightmare scenario was brought about (although the response was unnecessarily harsh) by not caring about the audience and its needs.

Reference