How to give a talk?
Werner Purgathofer, 2001, translated with DeepL

Introduction

What is my purpose when I give a lecture? Regardless of why I give a lecture (seminar lecture, lecture, conference, laudation, ...), I always have one goal: I want to communicate something to the audience. I want the audience to listen to me, I want the lecture to be interesting for the audience. The audience is the measure of all things! A lecture was good if the audience liked it, if it brought something to the audience.

What do you want the audience to learn? I think carefully about what core content the audience should not miss. What key messages should stick in their minds? What needs to come across so clearly that no one can ask afterwards? Only when I am clear about these most important contents will I be able to convey them.

What mistakes can I avoid? I am not the first person to give a lecture. The following is a list of the most common mistakes concerning the lecture itself and the slides, as well as instructions on how to avoid them. Not everything suits every presenter, and not everything is uncontroversial. But this collection of ideas is a good start to developing your own good presentation style.

How to fail surely?

  Be spontaneous and flexible! Preparation is for insecure colleagues. Rely on your creativity and step in front of the audience without your own documents. Keep in mind that thorough preparation of a talk might give the impression that you have nothing else to do.

  Think positively! If you arrive at the auditorium "just in time", someone else will have done all the preparations for you.

  Be polite! Don't forget to greet each senior person personally in the introduction. If possible, apologise for any shortcomings: hoarse voice today, lack of preparation due to lack of time, bad slides, for any coughing etc. Be thorough!

  Be thorough! Explain every detail, no matter how boring. Read each slide aloud to the audience, the fuller they are, the more the audience gets out of it. Formulas and tables in particular need to be covered in great detail.

  Don't take any shit! After all, you have prepared and know your stuff. Listeners sometimes suppress this and raise objections or ask cunning questions. Show sovereignty and shoot down unjustified objections. The ultimate goal must remain to have retained rights in the end.

  Hang in there! The longer you talk, the better the impression. Show strength by ignoring the time limit. And if you run out of material, summarise what you have said again, a great way to start from the beginning and explain some more details....

The lecture

The aspects listed here are not all achievable straight away. Good speaking also requires experience, routine and practice. Use every opportunity you get to speak in front of several or many people!

Beginning and end. The beginning of a speech is one of the most difficult parts. Prepare it explicitly! A talk always starts with a greeting and a very brief reminder of who is going to talk about what and why. Example: "Good morning! My name is XX and I will now give my seminar presentation on the topic YY". If you feel insecure, learn the first 2-3 sentences by heart. It is much easier to start that way. A lecture ends with an ending(!). Speakers who simply stop speaking often stand there for
seconds until the audience realises that it is over. Much better is a short "Thank you!", or "Thank you for your attention", or something similar. Pay attention to how experienced presenters end a performance and learn from it.

The audience is in front! A lecture is aimed at people. They are not glued to the wall behind you, nor are they in your monitor. Make an effort, as in any normal conversation, to look at the listener as you speak. Admittedly, this is not easy when there are many. Trick: find one or two attentive, interested "victims" and tell them the talk.

The voice. The worst thing that can happen to a speaker is that the audience doesn't understand him. Then it was all for nothing. One of the main reasons for incomprehensibility is often the voice. First mistake: you speak too softly. Speak as loudly as you would have to if you were talking to an audience member in the back row. Second mistake: you speak too unclearly. You have to make a point of speaking clearly, you have to practise. Never fall into any dialects or swallow parts. Third mistake: speaking too quickly. If you are too well prepared, you sometimes ignore the audience's speed of thought. Therefore: speak freely and do not learn by heart! Fourth mistake: you speak much too slowly(!). This only makes sense if you want to hypnotise or put the audience to sleep.

The structure. At the beginning of every lecture you need a motivation for the listener to pay attention. This can be followed by a brief overview of the content and an introduction. The core content should be underlined with examples, applications, so that the listener understands what something is good for. This also increases the memorisation effect. Finally, you should repeat the core statements in a few sentences.

The common thread. No listener is always paying attention. Too bad if you miss the most important statement and it doesn't come back. Then it was all for nothing. Therefore: the central statements of a lecture may, indeed must, be repeated several times. E.g. at the beginning, at the beginning of the corresponding chapter, at the end of the corresponding chapter and again at the very end. A chain of conclusions may, indeed should, be briefly recalled at each link in the chain. The red thread through the lecture must be redundant!

Reading? No! Apart from literature, reading has no place in any lecture. The manuscript consists of sentences that are far too elaborate, complicated and precisely formulated. No one can understand such a thing at reading speed. Freely spoken text requires the speaker to think for himself while speaking, and the listener can also follow this pace. So: never read!

Figure. In my opinion, there are only two real mistakes. (1) One is not moving at all. This is an essential component if you want to bore the audience, make them sleepy. (2) You obscure the projected image. You should consider before the talk in which areas you are allowed to move without obstructing the view of part of the auditorium to your slides. Full stop. Otherwise, you may act like a clown as long as it serves the purpose.

Excuses. Something always goes wrong. Be it the technique, be it that you discover a spelling mistake on the slides, be it that you have to cough, be it that the projected image is too dark, be it .... The normal listener will not even notice most of these things, because he is concentrating on your content. Unless you make them aware of it by apologising. Then he might think about how to avoid such things instead of listening to you. So: avoid apologies as far as possible.

Pointer. Prepare an adequate way to show something on your slides. Possibilities: a long stick, a laser pointer, the mouse pointer of your PC. But don't stand in the middle of the picture and point with your finger.

Time. (Almost) every presentation has a given time slot. This must be adhered to. Full stop. Only those who are poorly prepared do not know how long they will speak. Too short is just as bad as too
long. Give a test talk and find out how long you need. But please speak aloud, stand, imagine an audience. Don't just go through it in your mind, because the time will certainly not be right.

The slides

Nowadays, lectures are usually given with data projectors fed by a PC. The following tips are designed for these devices, but most of them also apply to slides and overhead transparencies.

Font. Probably the main fault on slides. The minimum size of text is 24-point, that of indexes 18-point, bold. No exceptions allowed! What is smaller often cannot be read from behind, and not everyone in the audience sees equally well. Rule of thumb: what I can't read on my monitor from 3 metres away is too small in any case. For text, a sans serif font should be used, and never more than 3 different fonts per slide.

Too much content. The slides support the lecture, they do not replace it. Keywords, overviews, pictures, graphics belong on the slides; but no complete sentences, no essays, no content that has to be read and understood in addition to listening! Upper limit: 6 to 10 lines of text per slide. If your font is big enough, not much more will do anyway.

Too many slides. The listener must - besides listening! - have time to fully absorb the content of the slides. Everything that cannot be understood is superfluous and should be eliminated. Rule of thumb: 3-5 minutes per slide with content.

Use of colours. Colours can be created quite easily. But be careful! There are two rules you should absolutely follow in order not to become confusing: (1) do not use more than 3 colours at a time, and (2) always use the same colour for the same meaning.

Scanned slide content. There is nothing against scanning images from printed works and integrating them into slides. But never text, formulas and graphics. There should never be so much text on a slide that scanning is more efficient than rewriting. Formulas are very often unreadable, or are usually far too complex in the printed version. And graphics almost always have (1) too thin lines, (2) too small a font and (3) too much information. Graphs should be made new for slides, simplified, with large font, possibly with animated structure.

Formulas. A good presentation does not usually need formulas. You can convey (almost) any content without formulas. The relevant formulas can then be found in the written elaboration, in the documents for the audience. If you do need formulas: (1) simplify as far as possible, (2) very few formulae per slide (e.g. 1), (3) no derivations, unless this is the core message of the lecture.

Headings! The listener should always be able to find out what you are talking about, even after a short break in concentration. Therefore, each slide should contain some information about it. It is quite common that somewhere in the corner you find the name of the speaker and the institution he or she is from. Likewise, each slide should have a heading. Another possibility is to use an overview bar in which the respective position in the lecture is highlighted.

Spelling and typing errors. With such errors you can (1) divert the audience's attention to unimportant matters and (2) quickly lower the intellectual impression of you. Slides are carefully prepared well in advance of the presentation with sufficient time, and contain relatively little text. Spelling and typing errors are absolutely avoidable.

Highlighting. Sometimes you want to highlight individual words or phrases in the text. You do this with colours, bold characters and with italics. But please do not use underlining. These look clumsy and unprofessional.
Pictures. The old saying "a picture is worth a thousand words" also applies to presentations. If the content allows it, underline with pictures, pictures and pictures! And if the content does not directly require pictures, then use pictures anyway. Pictures cannot tell you anything, they can only show you!

Brightness / contrast. It is difficult to predict the optical conditions in the lecture hall. Different projectors give different results. In general, projected images on the wall are darker than on your monitor (=> make them brighter!) and the contrast is worse (=> create slides with high contrast!). For very important presentations you can also prepare 2 to 3 copies of the lecture with different brightness/contrast parameters.

Cover line by line. Some presenters try to make it as exciting as possible, or are afraid that the audience might already be thinking ahead, and therefore only cover the lines of the slides they are currently talking about (or even worse: have just talked about). This is not advantageous for all lectures where you want to anchor as much information as possible in the minds of the audience. This is especially true for all presentations with technical content.

Animations. Programmes such as PowerPoint make it possible to be very creative in switching between slides but also in animations on slides. Keep a low profile! Any unnecessary animation distracts from the content of the presentation. But used skilfully, it can certainly liven up the lecture.

**The preparation**

Documents / Manuscript. Prepare sufficient documentation for the audience. Hand them out before the presentation, not afterwards, as this would be too instructive. Include things in the documents that there is no time for in the presentation. A good presentation motivates people to read the documents after the presentation. If possible, you should never hand out copies of the slides as documents; these are usually incomprehensible without an explanation (and if not, there is probably too much on them!).

Slides. The right number of well-prepared slides is one of the keys to success. See above.

Notebook. If you are travelling with your own notebook, make sure in good time that the interface to the projector is working. Often it is enough to switch the resolution if nothing happens. Also remember to switch off the notebook's energy-saving function, otherwise your slides will disappear after a while.

Cue sheet. The more freely a lecture is delivered, the better and more comprehensible it will be. You should therefore by no means hold the complete manuscript of your presentation in your hands during the lecture. If you are well prepared, it is often enough to see the slides and speak to them. If that is not enough, make yourself a cue sheet with only the keywords that you definitely do not want to leave out.

The mock lecture. Give a test talk! Find victims to whom you may give the lecture once and ask for honest criticism. Simulate proper conditions, no interruptions, stand, etc. Stop the time. And improve the lecture afterwards! If no victims can be found, then give the lecture alone in front of the mirror.

But stand and talk loudly.

The lecture hall. It is foolhardy to assume that everything is optimally prepared for you. Check the lighting conditions (darken?), the placement of the projector (too small a picture?, sharp?), the readability in the last row, the availability of a pointing device, a microphone, a water glass, or whatever you like. Everything is rarely optimally prepared....

**Other aspects**

Stage fright. Everything is prepared and suddenly you are nervous. Stage fright! Everybody knows it. There are basically two sources of stage fright: (1) you are not well prepared, not confident enough in
terms of content, you have practised too little. There is something you can do about it: prepare well, understand what you are going to say, practise! (2) you are still nervous, have sudden memory loss, sweating, weak bladder, stomach or intestinal problems, trembling hands, fluttering voice, runny nose and the like. Then reassure yourself with the following facts:

Your listeners do not think about whether you are afraid or not, and therefore do not notice your symptoms.

Speakers with too much self-confidence often come across as arrogant. You are not!

If nervousness is noticed, the audience usually understands it. Many are happy not to have to speak themselves.

Envious people who want to speak for themselves do not even think about stage fright and therefore will therefore not notice it.

You can rely on the fact that after the first few sentences, the flow of speech will automatically reduce your anxiety.

The best training against stage fright is to consciously avoid such situations. Take the floor in any large gathering, look larger crowds in the eye, give speeches and lectures where you can. And always remember that the point is to give the audience something useful, not whether you are nervous. Because the audience doesn't care about that.

Clothing. There are many useful tips about dress, some of which contradict each other. Dress in a way that makes you feel comfortable. And: clothes should not stand out.

Blackout. In the middle of a lecture, the thread suddenly breaks: You have no idea what comes next! But don't worry: the audience doesn't know anything (yet). Take a short break, briefly summarise what you have just said, look at your notes, or simply switch to the next topic. You will be amazed, but the audience will not notice anything! And if none of this helps, then openly admit that you are now having a blackout. Usually this helps and you remember, or someone in the audience helps!

Summary

Prepare well. Have a dress rehearsal. Speak freely to the audience. Repeat the most important things several times. Use pictures. Keep to the time. And exude enthusiasm. If you want to forget everything else, then at least remember the two most important rules:

(1) Speak intelligibly, otherwise you don't need to speak at all,
(2) Speak in such a way that people don't fall asleep from boredom.

Good luck!