How to make the perfect Presentation - or at least avoid the biggest pitfalls!

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I prepared many talks in the last decades and followed many more as an audience member. For sure I am not the best presenter in the world, but it is impressive how many talks fail to follow even basic presenting rules. I made my experiences in the scientific field, so if you find any of my suggestions strange or out of place, talk with colleagues or your supervisor about it. Rules can change and different communities might have other ways to present their results. The ultimate goal of each presentation should be to leave the audience enthusiastic. You wont be able to reach this goal with each presentation, but you should try. The following lines are intended as a primer. You should read it and decide consciously if you want to follow my suggestions or not. An outstanding presentation will not follow all points suggested here, but the presenter will know why he did decide against them.

Structure of a Presentation

Title Slide

The first slide should have the title of the presentation and the full name. It will be displayed until the presentation starts and allows the audience to prepare itself for your talk.

Introduction

The introduction should last about 10-15% of the entire presentation time. In the beginning the audience is busy preparing for your talk by finding a comfortable position and checking out their neighbors - they do not really pay attention to what you are saying. The introduction allows them to listen with one ear and still get most of it. Furthermore this part has one important function. It should span the gap form the common knowledge to the expert knowledge of the talk. Your task is to provide enough knowledge in a very compact way so the audience can follow the special parts of the talk. The more a person knows the later the introduction is of interest to them.

Main Part

The main part should last 70-80% of the entire presentation time. Now is the time to talk about the topic and show your results. If it makes sense for your topic you can again structure each subsection in introduction, main results and summary. Each subsection could be united by using the same background for the slides. A presenter should show his own priorities on the selection of what he talks about. Furthermore people in the audience should be always aware, if they are presented facts and experimental results (indisputable, eternal truth) or if they are presented opinions and interpretations of the speaker (who can be totally wrong). Usually the audience is used to discriminate between both, so the speaker can be subtle by for example changing the way he is talking. It is a big mistake to sell your own opinion as a fact and trying this complicates discussions (because now you have first to sort the facts from the opinions). In the main part you can go deep in to details or talk about special cases. But it is important to get back the people you lost during these parts or which started day dreaming. Therefore you should make a short pause after these special parts and use a change in your voice to signal the start of a new section which may be of interest for the entire audience.

Summary

The summary should last 10-15% of the entire presentation time. Here the main points are mentioned again and presented as a "take-home-message". The speaker should mention again everything he wants the audience to remember forever - even if they forget everything else. Its also the last time to win the audience for your view on the topic.

Last Slide

On this slide you should mention all persons involved in the work or the presentation and signal that you are now ready to take questions. You could say: "Thank you for you attention, are there any questions?" It is important for the audience to know when the presentation is over and the audience should not have to guess.

Composition of the Presentation

Slides

This is a topic on its own and different communities will have different views on this topic. A consistent design with harmonious colors that are in contrast to the background should be a reasonable starting point. It pays off to support your message with pictures. If you a talking about glacial lakes you should show a picture of such a lake. It will help the audience to imagine how such a lake looks like and it will answer many of their questions right away. But be careful: Every element in a presentation should have a function. Avoid unnecessary elements like small cartoons that do not contribute to the message of your talk. Any text on the slides should be short. Text should not be formulated in complete sentences. Rule of the thumb: The audience should be able to capture the text by looking at the slides, if they have to start reading you put too much text. Your supervisor will help you to find the right amount of text and pictures.

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A controversial point. Some people think it structures the talk and allows the audience to prepare for the topics ahead. The problem is that time is limited and you can use this time to talk about more interesting things. Furthermore the audience will anyway not be able to leave and it takes away the suspense. In a movie you also don't shape out the story at first, people should just enjoy the ride. In some talks it can pay of to give a table of contents. Sometimes the audience waits for some topic anxiously. It is better to let it know when you are going to talk about their favorite topic instead of letting them wonder if you will ever mention it. It is a controversial point you should discuss with your supervisor and follow his advice.

Points for Re-entry

In any talk you will loose some people along the way. Sometimes because they keep thinking about something while you continue talking, sometimes because they got distracted. It is important to create some re-entry points for them to give them the chance to follow the presentation from this point on. Re-entry points could be a more general slide, a short summary or a recapitulation. Anything that helps them to pay attention again and follow the rest.

Citations

References must be given in detail. "Internet", "Wikipedia" or "Library" are no references. You have to provide information about the article or book you are citing. It pays of to collect references already while you are preparing your talk. Sources of pictures can be provided under each picture in small letters, or as one slide in the end. Different scientific groups have varying habits, so try to find out what is expected from you.

Speaking in Front of an Audience

Tools for Presenting

In best talks the speaker talks freely without any sheets or script in his hands. The audience does not realize that he uses any tools or helpers that guide him trough the presentation. Because very few speakers will be able to memorize an entire talk (excluding professional speakers which show the same talk several dozed times) we should have a look at invisible helpers. Most speakers do have a script which they place at a suitable location before the start of the talk. It is crucial that the script is made out of headwords and very few text. Written language differs to the way you talk in front of people. One of the biggest mistakes is to read the talk from a script. The audience will start then wondering, why you do not just hand them the script and let them go home. Even if you are not planning to read things from the script, you could be tempted to use a well formulated script for support in case you loose track. This idea is limited by the fact that you wound not find the correct spot in your script once you need to. Especially if you are tense, you will require too much time reading and searching while the audience is bored. The script should be written in a condensed form, have a reasonable font size and should be structured in a way that allows you to jump to the current position at first sight. Only the knowledge of being able to save yourself with this script is usually sufficient and you will never need it. It is like the rescue boat on a cruise ship. In contrast to things mentioned above it is usually recommended to formulate the first two sentences well. So in case you stage freeze in the start you can read them and that should get you started to do the rest without script. Some speakers use small cards with notes to guide them through the talk. I would not recommend it, because first of all the cards block your hands and second most speakers hold on to them as if they would be the only rope stopping them from falling into a lion cave. If you do not manage without cards, use them (they are an well accepted tool) - but the talk gets better without cards! If you are wondering how you can manage the talk without looking at the cards or in the script - here is

the trick: You build your slides in a way that they will remind you of what you want to say. Or you just try to memorize what you want to say when you see a certain slide. You have to be careful to not end up reading your presentation to the audience. It has to be avoided at any costs, because you are in this case probably standing with your back to the audience, you put too much text on the slides and the audience will get the impression that you see your own presentation for the first time. For this reason many guidelines say that you should never look to your slides. The way it can work out is to check the slide with one view (below one second) when the slide is changed. People should not get the impression that the speaker is reading the slide but is confirming that the helping stuff displayed the correct slide (what should be checked anyway because sometimes a slide is missed). Then you will remember what to say and if not, there is still the script.

Preparation

Many people recommend to formulate the entire talk once. I object and would only formulate the condensed script. If you start formulating entire sentences you may tend to say things exactly this way. If you do not get the correct phrase you might stumble, while any other sentence would be as good as the one which does not come to your mind. If you have your condensed script, present your talk 2-3 times at home to practice. You should speak the talk out loud (to practice with the same brain parts you will use later) and check, if the required time matches the desired time frame. During the talk you will use 10-20% less time because you might forget things and might speak faster than originally planned.

Body Language

You should stand up straight and watch the audience during 95% of your talk. Body language and accentuation should give the impression that you enjoy talking to them and you are happy to talk about this interesting topic. Only if you are enthusiastic you may spark the fire in the audience. Therefore you need eye contact with the audience. If you are threatened by hundreds of viewers, pick five people equally spread in the audience and look at them. You can ignore the rest, they will not realize. Also ignore people which laugh or distract you with their behavior, just never look at them. You should use your hands to support your spoken words. How to do this is a topic of its own, most people have an intuitive way to use their hands. Typical examples are politicians who train to use them efficiently - or Italians which use their hands naturally while speaking. You should move a bit while presenting, for example by walking from one side to the other. It make the talk more dynamic but at the same time it should not leave the impression of a sport exercise or distract the audience.

Recapitulation

Repetitive sentences or information plays an important role in talks. It can be used to discriminate the important information from the less important. Nevertheless it makes sense to use a different phrasing so that people unable to understand your first attempt get a second chance to get it right. Usually the audience does not consider repetitions disruptive, they consider this information to be especially important instead because its mentioned twice.

Emphasize Important Parts

Articulation my be the most important tool to control the talk. You should not speak to fast so the audience can keep up and has enough time to think about what is said before the talk continues. Rule of the thumb: The slower and the louder you speak, the more important the content is considered. You should help the viewer to judge the importance of your words by the articulation you use.

Stress Sounds

Many speakers are nervous in front of a big audience. Then they bridge the time until the next sentence comes to their mind with "eeeeeeeeeeeeeemmmmmmmm" sounds or similar noises. Other repeat the same phases or words over and over. And because they are so nervous they do not even realize themselves what they are saying. It pays of to ask friends after your talk if they realized something and then try to stop this behavior. The reason behind it is a different experience of time. You think it takes forever till the next sentence comes to your mind, but the audience thinks its no time at all. So you should think silently what you want to say. To my experience the audience will only notice if you stop in slilence for longer than 5 seconds. So enough time to get back on track.

Forgotten Things

Nobody in the audience knows what you wanted to say. If you forget to mention something they will not realize that you planned to say more. So instead of saying "What I forgot..." do go back and explain what was missing. That looks as if it was planned. If the forgotten points are not crucial you can also just leave them out and continue.

Mishaps and Mistakes

Any technical difficulties or mistakes should be handled with cold blood and be ignored if possible. Many people in the audience do not give you their full attention. If you start swearing or get annoyed you will have their full and undivided focus instantly. Would you solve the issue silently most of the people will not even notice that there was a problem or they might even think it was part of the talk.

Questions from the Audience

The audience can be activated if you offer to answer their questions. One problem with all this questions is that the audience can rarely understand what question was asked. So if there are no technical tools the speaker should shortly repeat the question. Then the audience can listen and the person asking the question can correct you in case he meant something else. Furthermore people in the audience are usually not interested in other peoples questions. Therefore it is common to answer questions at the end of the talk. It is a good habit to also offer to ask questions privately after the talk. Then also people can ask their questions who do not feel comfortable speaking in front of everybody (sometimes this are the really interesting questions).

General Tips to the Technology

Pictures

Use a reasonable size and sufficient contrast and brightness. Projectors produce usually darker pictures and provide lower contrast compared to computer screens, resulting in a lack of structure and resolution in the dark parts of the picture. In case of doubt check your presentation with a projector at comparable conditions.

Background

Use uniform slides with very few structure. Do not use prominent pictures or graphics. The background should be uniform to be not to distract the audience. A perfect background is the one nobody in the audience remembers. It may be nice to use a different background for different sections of the talk.

Effects to change Slides

Do not use special effects like rotating text fragments or flapping slides. Usually only beginners are impressed by the multitude of options the software offers and tend to use them all. Your topic should be in the center of attention, not the options of your presenting software. Effects distract from the topic and are dominant in bad talks.

Text and Headlines

The same holds true what is said at the effects section. Do not use effects to show or hide text because it distracts the audience. Text should be formulated condensed and not in complete sentences. Remember: Text should be captured by the audience without reading, if they have to read you have too much text.

Tables and complicated Graphics

Big tables or complicated graphics should be avoided in a presentation. The audience takes to much time to get oriented and has no clue what it should focus on. So in case you have to show big tables you need to guide the audience through the table and the most important values.

Number of Slides

General Rule: Use one slide per minute of the talk. If you show slides in a fast sequence, you can count them as one slide.

Fadeing in Points

A good way to structure your content is to show one point a time. So you start with the first point and while you talk one by one the points appear on the slide. There are two ways to archive this effect: You could prepare one slide with all points, copy the slide as often as you have points to show and then delete on the first slides the last points. On the next slide you delete one point less and so on till all points are visible. The other way is to use the animation feature. With both methods you can build your slide step by step.

Program and Saving

It is essential to inquire which software is available on the place of the talk and to confirm that your software is compatible. A presentation can not contain pictures as links because the links might get messed up on the other computer. So do embed everything in the file, even if it increases the size. The file should be a few megabyte in size if it contains a few pictures, if its smaller check that everything was embedded correctly. I would advice to embed fonts into the presentation. Therefore select in "Save as..." the field "Tools" next to "Save". There you should activate in "Save Options..." "Embed Fonds in File". If you do not do this some special fonts can be unavailable on the target computer and will be shown as squares. You should always save your talk in the latest version and in the old "Powerpoint 97-2003" format which can be processed correctly in most software. It can be that the latest software is not available at your presenting computer and this file will then save the day. If you want to be extra save you can save your file as *.pps (Powerpoint Show) file and download the suitable viewer from (http://www.microsoft.com/de-de/download/details.aspx?id=13) to your memory stick. Then you are independent of any software at the presentation place.

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