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EDITORIAL

Powerful Posters and Terrific Talks



R. Threlfall

Making presentations engaging for an audience can be a challenge, but these are key skills if you want your career to blossom in many walks of life. If your main subject matter is basically a big bunch of data, like it often is in science, then how on earth do you make an exciting story out of what looks to most people like a jumble of numbers and structures? What can you do to grab someone's attention as they casually walk by a poster or wander into a lecture room, and how can you present your work in a way that is accessible for everyone, no matter if they're a professor, a postdoc, or just a person with a passing interest?

A presentation can be as much about you and your scientific journey as it is about the results that you've got along the way, and realising that people want to hear your story as well as that of your data can go a long way to helping you make that all-important personal connection to your audience. Therefore, starting with posters and moving on to giving talks, this collection of tips aims to get you thinking about the scientific as well as the human aspects of what really goes on at conferences.

Among many topics, I'll discuss how to choose and target your content effectively, how to use the typical behaviours of conference-goers to your advantage, and how to present yourself as professionally as you present your content. I'll also give you some practical tips on things like how to get talking to people at conferences and how to impress poster-prize judges. This guide will help you to master the art of giving scientific presentations step-by-step so that you can get maximum impact from your time in the spotlight.

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The articles in this booklet have been published in the Education section of ChemistryViews.org together with free-to read articles on publishing skills, tips for the lab and for your career.

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Writing a Conference Abstract

The first thing that you'll do for a conference presentation, be it a poster or a talk, is to write your abstract. A conference abstract is usually written months in advance of the actual presentation, which can be a help and a hindrance in deciding what to put in equal measure. The abstract also has to serve a number of purposes, including showing why you should be chosen to present at the conference, acting as an advertisement for your work in the abstract book, and attracting people to attend your talk or come to see your poster. Therefore, your abstract needs to give some solid and exciting results but also the impression that the work is still dynamic and ongoing, which means that people reading the abstract will only find out the really new stuff if they see your presentation.

The first and most important thing when you're composing any type of presentation is to always consider who the audience is. In this case, the first readers of your abstract are the conference selection committee. Because they may have hundreds of abstracts to read, they will not be able to devote much time to each one, so make sure that your abstract is concise. A very short introduction to your previous important results will help set the scene, but including too many of your own papers as references just looks like self-promotion, so be selective. A sentence about the wider background may also be necessary if the session or conference has a general audience.

Keep abbreviations to a minimum and include something visual, such as an illustration or reaction scheme, to ensure there is something eye-catching. Choose your image carefully, making sure that it is as self-explanatory as possible and is understandable to who you expect the average conference attendee to be. Conferences usually have hundreds or possibly thousands of delegates, therefore, to make yourself stand out from the crowd, you might also consider including a small photograph of yourself with your abstract. This will give people the chance to connect your face with your work, which is a very powerful visual association.

An abstract for a journal submission should never be vague or leave the reader in any doubt as to the results of your work, but for a conference abstract a little bit of uncertainty can be a good thing if it is carefully crafted to spike a reader's curiosity enough to attend your presentation. For example, you could specify some things that you reasonably believe you will achieve before giving the presentation but which you haven't yet completed at the time of submitting the abstract. A sentence such as: "The latest results on the application of these materials in improving the efficiency of the redesigned solar cells will also be presented." gives a general but tantalising hint that the reader will be the first to see your new results and this will have them putting your presentation right at the top of their "must see" list.



Planning Your Poster

When planning how to tell the story of your research on your poster, you should first consider a couple of the realities of scientific poster presentations. Firstly, a note on format. Whereas in former years putting up a collection of 12 or so printed slides was acceptable as a poster presentation, these days computer programs for producing posters are so widely accessible and easy to use that there is really no excuse for using slides instead of making a poster. This looks a little amateurish and if you can make slides, then you can definitely make a poster. So come on, let your artistic side out!

You know if you've been to poster sessions before that, in general, a person walking by may spend a few moments looking at a poster but will actually read very little of the text. This means you should be thinking of how to tell your story as visually as possible. Also remember that you won't be with your poster at all times during the conference, but that doesn't mean that other people won't be looking at it. Therefore, you need to make it as self-explanatory and easy to navigate as possible.

The title of your poster should be short and catchy, but it should also be concise to avoid taking up too much space when it's written in a big font. You should use reactions schemes, x-ray structures, graphs, western blots, or anything else that you can make into something highly visual to show that key breakthrough moment in your project. Photographs are particularly effective for this, as they are somehow more "real", but spectra can be less effective, especially if they require any interpretation.

Of course, text can't be avoided completely but use it only where necessary to provide that little bit of extra explanation for the really interested viewer. Use bullet points or short lists of the key points you want to make, and don't be afraid to annotate images, even with things that you think are really obvious because they won't be obvious to everyone. For example, if you have an important band on an electrophoresis gel, label it with something eye-catching, such as: "This band confirms the structure of the target!"

Lastly, try to leave a couple of "leads" for questions. This doesn't mean that you should leave any important data out, but you should try to design your poster in such a way that there are some opportunities for the viewer to ask questions. For example, you can leave hints to optimisation work that you might have done on a reaction by adding an asterisk to a reaction scheme: "*Best conditions identified after testing 25 solvents and 12 catalysts." The obvious question is then what the other solvents and catalysts were. This saves you valuable poster space by not having to list all the results of the optimisation work on the poster, but it still gives you the chance to talk about them. You can prepare answers to these potential questions before the conference so as you are fluent in answering them if they come up in the poster session. This approach will increase your confidence and your chances of impressing those all-important judges of the poster prize.



Designing Your Poster

Now that you've assembled all the content for your poster, you have to think about the layout. A poster is, of course, a very visual presentation, but you have to strike the right balance between making a memorable impression and not overwhelming the viewer.

At all times in the design process, consider how your poster will look from about a metre away from it. Leave sufficient space between the sections so that it doesn't look overcrowded, but avoid leaving too much space as this will make it look as if something is missing. Don't feel you need to cram in postal addresses, phone numbers, fax numbers, university crests, and so on, because very few people will actually read this. Just make sure you have your name, your institution, and your email address, maybe with a group website if you have one, clearly visible, as this will be your main method of contact after the conference.

When people look at a poster, they want to be able to get the general idea without having to read a large chunk of written text. Therefore, relatively large font sizes will make text clear for the viewer, and will also help you to control the amount of text you include because you simply won't have enough space to write too much. Large font sizes also help if you want to consider taking smaller copies of your poster to the conference as handouts, the benefits of which will be considered in more detail in the next section.

Simple and consistent use of colour will help guide the viewer through your story, so use colour carefully to highlight the most important parts of the poster and help the viewer pick out what's significant. If you use too many colours, the message of the poster can get lost in the decoration. Numbering your sections can also be a useful navigational aid, and choose a light background with dark colours for your text, as this is much easier to read than light text on a dark background. Although not strictly necessary, a colour scheme that is coordinated with other people from your group or department who are presenting at the same conference can give your posters a professional touch. This can also make your group and/or institution much more memorable to a viewer.

Another useful tip is that people tend to focus on the things they see between their chest and waist height when they walk past something, so you should put your most important and most eye-catching content in this area of your poster. Remember to then hang your poster at the appropriate height too! This will help the viewer to see the most important results easily, even if you're not presenting your poster at the time they happen to walk by. Therefore, your poster can be hard at work showing off all your great work at the times when can't be there to do it yourself.



Presenting You and Your Poster

There are two parts to a poster presentation: you and your poster. You've probably gone to quite a lot of effort to get your poster to the conference in good shape by printing it on the best quality paper, maybe laminating it, and then carefully bringing it in its tube to the conference venue. But there's no point in doing all that and then turning up to your poster session in a pair of scruffy jeans and a T-shirt with bags under your eyes from drinking too much at the conference bar the night before!

People come to poster sessions for all sorts of reasons, from killing time in between conference lectures, to looking for new collaborators, or even hunting for new staff and students for their labs. Then, of course, there are usually some poster prizes at most conferences, so the judges will also be looking for outstanding presentations. Therefore, presenting your poster could be an advert for your lab, a pitch for a poster prize, and a job application all rolled into one, so you should treat it as all three.

Dress smartly but comfortably and smile so that you look approachable. Be polite and professional when talking to people, and be prepared to talk to anyone who shows an interest in your poster. Maintain eye contact and, as for oral presentations, avoid talking to your poster instead of addressing the person. If you're really out on the job hunt, you could also take some printed copies of your CV with you, because personal contact with a potential new boss is absolutely invaluable for giving yourself the edge among your competitors.

Poster sessions are only one part of your participation at a conference and you can't be there with your poster all the time. However, you can still make your poster reach as many people as possible even when you're not presenting it. People can't resist taking freebies and handouts at conferences, so the trick is to hang a small envelope or plastic wallet with A4-size copies of your poster for people to take. Consider this when designing your poster so that the content is visible in the smaller version. You can also leave a small container of business cards or even a short list of your relevant publications alongside your poster so people can find out more about your work and, more importantly, how to contact you.

If you do leave things for people to take, then there are two things to remember. Firstly, pins or sticky pads are sometimes in short supply at conferences, so make sure you take enough with you to stick up all the things that you want to. There's nothing more annoying than preparing all your stuff and having nothing to hang it up with! Secondly, handouts will likely be taken faster than you imagine, so take plenty, put a few out at a time, and refill regularly to guarantee that there's something on offer for everyone at your poster all the way through the conference.



Talking in Poster Sessions: Breaking the Ice

So you've prepared all your handouts, sat through the first session of lectures, and the poster session finally opens. You're standing next to your poster when someone wanders by and pauses for a while. They look at your poster, they seem to be interested, but neither of you make the first move. We all know the feeling of the awkward silence before the person glances at their abstract book, moves on to the poster next door and you've missed your opportunity. Perhaps that was an expert in your field, a potential collaborator, a journal editor (yes, we do go to conferences!), or even your potential future boss that you've just let walk right by! So how do you get someone talking in a poster session?

If someone stops briefly to look at your poster, don't wait for them to ask the first question, you should break the ice right away. However, you don't need to ask profound scientific questions to get someone talking. You can point to the most critical part of the poster, which, due to your clever design will have already caught their eye, and open with: "This is the most exciting bit here, because..." and this leads you right into the heart of your story. Alternatively, it may sound silly, but neutral questions like: "Hi, how are you today?" or "Hi, which institution are you from?" are good openers because they aren't easy yes/no questions and you make direct personal contact with the person straight away.

Another method to engage with people is to bring some smaller A4 printouts of your poster or a short list of your relevant publications. You can begin with, "If you're interested, I have some copies here that you can read/take away with you/look at later." This strategy has the added benefit that even if the person takes the copy and walks away right then, they still have your work in their hand. This means that they can look at it in their own time and they may even come back to talk to you later on.

The value of paying attention in the conference lectures cannot be overstated for poster sessions. If you've seen someone give a talk earlier in the day and they're browsing your poster, then "I enjoyed your talk earlier on, did you know that our group is working on something similar?" or "I enjoyed your talk earlier on, I thought that your work might be particularly relevant to this step here..." are fantastic ice-breakers. Of course, this is trickier if the speaker's work is totally unrelated to your own, but in these cases, you can still let the person know that you enjoyed their contribution to the conference and this will likely lead to them taking an interest in yours.

Even the shortest of opening questions can get you what you want at the start of a poster presentation, and what you want is eye contact. As soon as you have eye contact with someone, it is much more difficult for them to walk away and most of the time they will begin to talk with you. Then, you're in the driving seat and can begin to explain all the best bits of your project to a captive audience.



Talking in Poster Sessions: After the Icebreaker

So you've exchanged some pleasantries with your poster viewer, but now the focus turns to the science. At the outset of a poster presentation, it's a good idea to ask someone that you don't know what their scientific background is, especially at large general conferences where people from many different disciplines are likely to be present. This way you know whether you have to start right at the top with some general background to your project, or you can dive right into the details.

For a person with specialist knowledge of your subject, you should concentrate on the more technical parts of the poster, such as the things you know to be great challenges in the field that you have overcome with this work, or common techniques that you may have been able to improve during your research. For a person who is not a specialist, then finding out their background is even more important, because launching into a detailed description of, for example, organic reaction conditions, is probably not so interesting if the person standing in front of you is a physicist!

What you should avoid at all costs is reciting the entire story of your poster like a script in great detail to every person that passes by. This is likely to be boring for you as well as the listener, and if you are bored, then you're not likely to be presenting your work in an enthusiastic manner. Try to identify what each person finds most interesting about your work and focus on that.

You can usually only talk to one person at a time, so if you're already talking to someone and another person is showing interest while you're talking, a valuable thing to do is to very briefly acknowledge the next interested party with a short "I'll be with you in just a minute", so that they know you are interested in talking to them and they will stay around or perhaps come back a little later when your current conversation has finished. If you're going to do this, make sure you apologise to the person you were already talking to and give them your full attention for the remainder of their conversation with you. Only when the first person has gone should you move on to the next person. This strategy gives you the power to control the flow of people at your poster and has the added advantage of giving you the appearance of a pro presenter, even if it's only your first poster session.



Talking in Poster Sessions: Answering Questions

In general, people go to poster sessions to learn something, to get new ideas, or just to have a browse. You shouldn't think that anyone is asking questions with the intention of catching you out or embarrassing you. The poster session isn't an exam and if you don't know the answer to a question, then it is fine to say that you don't know. However, what you should realise is that there are likely to be a large number of very experienced researchers there and trying to learn something from these people should be one of your top priorities.

If a person is asking a very technical question, then chances are that this is because they have had personal experience of whatever they're asking about. For example, if someone asks: "Have you tried XYZ catalyst for this reaction?" this likely means that they've used catalyst XYZ in the past for something else. Your response could then be: "I hadn't thought of that, have you had any experience with catalyst XYZ? How do you think it might work in this situation?". Likewise, if someone asks a more open-ended question, such as "Are there any alternatives to these conditions here?", then it's likely that they have seen or done something similar themselves and your response could be: "These are the best that we have identified, but did you have another idea?". Answering a question with a question can sometimes be annoying so don't do this every time, but people do like to talk about themselves and the person asking probably won't get annoyed if you are genuinely trying to learn something through scientific discussion.

There will be lots of people walking by who won't be specialists in your area of research, but they will be genuinely interested in learning something about it and it's always helpful to look at your work through the eyes of another. That's not to say that there won't be people there who will want to challenge your theories, but discussion is part of the scientific process and can be valuable in developing the skills you need to defend your work in public.

If someone begins to question or challenge your work more aggressively, then the first thing to do is remain calm and not to get too defensive. Restate your reasons and results and how this backs up your hypothesis. A good technique is to then ask the other person to talk through their point of view step by step. Going through their viewpoint in smaller sections as opposed to trying to tackle what might be a long concerted critique on your work makes it easier to identify where their interpretation might be incorrect, and where they may be in the right. This approach shows that you are willing to have an open scientific discussion and will hopefully lead to you being able to prove your point by logical reasoning. You may also be able to identify areas of common or complementary expertise, or a shared interest that might lead to collaboration, which is a much better outcome than an argument!



Talking in Poster Sessions: Impressing Poster-Prize Judges

If there's one person you can be assured will come and talk to you during your poster session, it is your assigned poster-prize judge. The prize judges are generally very easy to spot because they'll have pen and paper with them to write down their notes, they'll usually head directly for your poster, and they won't hesitate to start a discussion. Judges are sometimes assigned a few posters in the same area as you, so they'll be having detailed conversations with some of the other presenters around you. This is something to keep a watch for when you have a few quiet moments at your poster. At the majority of conferences, the judges are also chosen from the invited speakers, so again, pay attention in the conference lectures!

How familiar you are with the judges personally will naturally vary with your field of research and with the size of the conference. Look carefully at name badges and if you don't know the judge, ask about their scientific background. This will allow you to put your work into a better context and give you more chance to show your knowledge of your project. The cynics among you might also be tempted to suggest that discussing any of the judge's own work that happens to be relevant to your poster could be very advantageous in the judging process. While I couldn't possibly recommend the use of anything other than your outstanding scientific knowledge and presenting charisma to win the judges admiration, I will leave you to decide for yourself the relevance of the saying "flattery gets you everywhere"!

After you've got to know the judge a little, here's where your clever poster design takes over. As I wrote in the section on planning your poster, if you've thought ahead, then as well as clear and almost self-explanatory content, you'll have left a couple of "leads" for questions. The expert judges will spot the opportunity to ask the technical question and go straight for it, at which point you can impress them with your fluent answer. Judges with more general knowledge about the area may not identify these gaps right away, so this leaves you with more scope to expand your description of your work by pointing out the subtleties.

Lastly, if you've come well-prepared with handouts and business cards to the conference, don't be shy about offering the judge a handout. When they're looking through their notes later on, they may come across your handout and get a powerful visual reminder of what a great presentation you gave. This is sure to go a long way to getting that conference poster prize safely in the bag.



Planning Your Slide Show

As with posters, the first and most important thing to think about is who the audience for your talk is going to be. A talk for an audience of students is not going to be the same as one for an audience at a conference, so make sure you present the content at a level that should be understandable to the average member of the audience. This also includes thinking about the relative expertise of the audience. Are they mostly going to be familiar with the background to your topic, or is it worth devoting a few more slides to explaining the context of your work? Framing your work in an understandable way is the key to keeping the attention of the audience.

Break your content up into a number of small sections according to the allotted time of the talk. Smaller sections are easier for you to manage from a time perspective because it's easier to keep track of how fast you're going if you have section breaks as timing points. A good method is to make an overview slide with every section of your talk on it. Show this slide at the beginning of each section with the current section highlighted. This gives the audience an easy way to follow your story and to see how each section fits in with the next.

Many people suggest a rate of one slide per minute, which is fine as a general guideline. Do remember that many people tend to speak faster when nervous or under pressure, so having a few more slides than minutes is generally a good strategy. Having more content that you can fit in is better than having not enough to fill the time.

Prepare a couple of answer slides for the questions section, that is, try to think of questions that are likely to come up and make slides for those that you think may require some in-depth explanation. Even if the slides aren't totally relevant to any questions that you're asked, you will still have the answers you've prepared to go with the slides in your mind, and they may be adaptable for answering a range of different questions.

Lastly, be careful with trying to incorporate jokes into your presentation. Only if you are sure that a joke will get a laugh from the audience you are addressing and you can deliver it confidently should you attempt verbal humour. On the other hand, cartoons can be useful to elicit some giggles from the audience, but again, only if you are sure that the cartoon is understandable for the majority of the audience. What you don't want is the humour to fall flat and the joke to be on you!



Designing Your Slides

The first time I gave a Powerpoint presentation I was so excited about all the features I could use to entertain my audience. Animations, sound effects, making things appear, flash, then disappear all seemed sure to entertain. Looking back on that first presentation, perhaps it did entertain the audience a little, but after attending many more presentations since then I've realised one thing: these features are mostly just annoying!

As I've advised before for writing a paper, keeping your slides simple helps to keep the message of your presentation clear for the audience. Choose a simple colour scheme, avoid adding too much decoration, and keep the slides as uncluttered as possible. Use backgrounds that are neutral and don't interfere with any of the graphics in your slides. Dark writing on a light background, for example, good old black on white, is most effective, but light writing on a dark background, for example white or yellow on a blue background, is more difficult to read. One of the reasons for this is that your slides are likely to be one of the main sources of light when the lights in the lecture room are turned down, so if your background is dark, there is less light and less contrast between your text and background, which makes your slides more difficult to read.

A slide show is, of course, visual, so don't include loads of text. Use text sparingly when designing your slides. You are going to provide the explanation for the slides verbally, but the audience only needs to see the most critical results or the most critical statements written down. This way, the important things stand out and aren't lost in a mass of other, less relevant text. Tables are also not so useful because they just appear as a jumble of letters or numbers, so only use tables if it's absolutely necessary. Otherwise, graphs or other more visual means of showing data are much more effective. Also avoid abbreviations where possible. A slide show is not like a paper where the audience can go back if they forget what an abbreviation stands for, so if you use too many you may confuse people. Colour coding and cartoon representations are useful tools for adding clarity where abbreviations are necessary.

Animation, such as making text slide in from one side or making a picture appear from nowhere, can be used to emphasise certain points, such as a surprising result. Overusing animation, however, tends to slow a presentation down. For example, if you have four bullet points and you introduce them one by one by making the text slide in from the side each time, pressing the button on your computer or remote control and waiting for the text to appear will interrupt your flow. This can make the presentation seem a bit stop-start and will lead to the audience losing concentration faster. More effective is to put the complete slide up straight away and talk the audience through it step by step. The audience can then get a complete understanding of your ideas without being distracted by bits of flying text.



To Script or Not to Script?

Many people make a list of notes or even write a full script for a talk and try to memorise it. However, think about the best presenters that you've seen. Did you ever see them using notes? In all likelihood you won't use any of your notes because the writing will be too small to read quickly enough when you're speaking or you'll forget your script because you'll be excited, nervous, eager to finish, and probably all three at the same time. Even if you do remember to use your notes or script, reading out bits of text is likely to make the presentation sound rigid and uneasy. In most respects, extensive note writing for a presentation is a waste of time.

The secret to giving a good presentation is fluency, that is, a natural flow of words and ideas that is easy to follow. Talk to the audience as if you're explaining your latest results to your boss or another slightly more senior colleague. This way you'll use a slightly more formal tone than you would when talking to your co-workers, but will still seem approachable to the audience, which is good for encouraging them to ask questions later on.

Design your slides as visual cues for yourself when you're talking. Have the two or three main things that you want to say about each of your slides in your head and don't plan every word you want to say for every slide because it's unlikely that you can remember a whole talk. You also can't panic about forgetting your script if there isn't one to forget! If you lose your train of thought while talking, your simple design and clear, uncluttered layout will help you as much as the audience. It's much easier to remind yourself of where you're up to with a quick glance at your slide when it has only a few things on it than it is to read through lots of text or figures to work out what you want to say next.

Practice is, of course, another key element to a successful presentation, so find some kind co-workers who are willing to listen to a couple of practice talks and ask them to give their honest opinions at the end. Don't let them leave the room without telling you at least one thing they didn't like or that wasn't clear, because friends tend to be too kind to each other. Also, don't forget to return the favour when it comes to their presentations. Running through your complete talk two to three times should be sufficient for you to identify parts that you need to revise or reorganise so that the flow is smooth. Any more than that and you may find yourself becoming a bit robotic and just reciting parts that you've overpracticed. Keep it natural and a bit spontaneous and you'll breeze through without a note in sight.



The Main Event - Stepping into the Spotlight

As with posters, there are two parts to an oral presentation: you and your slides. If you're going to be talking to an audience for what could be up to 45 minutes, you can't afford to have your audience drifting off to sleep within the first five minutes. Therefore, the way you present your content can be almost as important as the content itself.

A practical point first: Back up talk in as many ways as you can think of before you arrive at the venue. Bring it on a USB stick, save it in an internet-accessible email account, save it on your phone, whatever, but make sure you have access to it from several sources just in case the worst happens and for some reason one version of your talk doesn't work.

Dress professionally but comfortably so that you're not distracted by a piece of clothing when you're talking. Start with a confident introduction of your name, where you come from, and what you're going to talk about so that people can connect your face, your institution, and your work. Do this even if you've been introduced officially by the chairperson of the session, and you can even just use your first name to make the connection with the audience a bit more personal. Some people and cultures, however, don't generally use first names in professional situations, so bear this in mind when deciding whether to use only your first name or not.

The number one thing to avoid in a presentation is reading everything from your slides with your back to the audience. This is an instant atmosphere killer! People do not need to have slides read to them because they can read what's there themselves. The occasional glance at your slides as a reminder of where you're up to is fine, but what the audience is interested in is the story behind the slides and the insights you can offer them into the data on the screen. If you read from the slides, your voice is likely to become monotonous, the story will sound rigid and uninteresting, and you'll lose the attention of the audience very quickly, so make sure that you look around your audience when you're speaking and address the whole room.

Keep to your allotted time and don't be afraid to show some enthusiasm when you talk. One of the purposes of a presentation is to advertise your work, so if you don't seem excited, why should the audience be? Take the audience on a journey of your story including all the ups and downs that you've experienced along the way. People are much more likely to connect with a person who shares their experiences of what they've achieved than someone who gives a robotic-sounding report of numbers and graphs.

Finally, thank the audience, chairperson, and organising committee as appropriate for the chance to present your work, then sit back down in your chair, listen to the excited chatter among the audience, and enjoy the buzz that you've generated.



Taking Questions

Question time can be one of parts that most people dread about a presentation and this is perhaps with good reason. Spontaneously debating your own work in a public forum can be intimidating, but a presentation that generates a lot of questions is a good thing. It shows that your content and your delivery have kept the audience engaged, and that the audience to want to know more about your work should be taken as a sign that you've done your job as presenter well.

As with answering questions in a poster session, being honest if you don't know the answer is generally a good thing because you can get yourself into awkward situations if you try to answer questions that you really don't know the answer to. Again, treat it as a discussion and an opportunity to learn by saying something like: "I don't know the answer to that, but perhaps if you've got some ideas we can talk later on in the coffee break/lunch break/reception/whatever free time is coming up next". By showing yourself as open to learning and discussion, you look professional and confident in your position, but you'll also appear cooperative and as someone who is worth having a serious scientific discussion with.

Jumping forward and backward through your slide show to answer questions is often disorienting for people. It can also take a little time, of which there's generally not much anyway, to get to the correct slide. Therefore, it's often easier on you and on the audience, who may be waiting to get out to lunch or to the next session, to avoid doing this where possible.

Occasionally, there will be someone in the lecture room who will want to vigorously and perhaps even aggressively challenge your findings. This situation is also similar to that with posters in that you should stay calm and try to point out where the respective points of view agree and disagree and your evidence for your claims. If you feel that the discussion is getting too long or even too aggressive, then don't spend a lot of time arguing, instead say something like: "I can see we're going to disagree on this and this is going to need more discussion, so how about we can talk about it in the coffee break/lunch break/reception/whatever free time is coming up next?". Once again, you've shown that you're not afraid to tackle criticism, but that you're confident enough to diffuse the immediate situation so that everyone else in the audience who isn't directly involved in the disagreement is not unduly affected by, for example, overrunning your time or a heated argument.

This professional and courteous approach will win you recognition for your scientific knowledge and your people skills in equal measure, which is the hallmark of an accomplished presenter.



Making it Memorable

The most memorable presentation I've ever attended was when I was a student. The presenter, who is deservedly well-known for his talks, mixed in magic tricks with his lecture on molecular motors. At the end of the lecture, he did a card trick with a giant pack of cards and an unsuspecting volunteer from the audience pulled out a card that just so happened to have a smiling photo of the head of department on! This was surprise for everyone, and a memorable moment that has stayed with me for more than ten years.

While performing magic during your talk is very a special talent if you have it, I wouldn't recommend this strategy for everyone. The moral of this story is, however, making your presentation stand out from the rest is definitely something I would recommend. A clear account of the latest exciting development in science should always be your main aim. But alongside engrossing your listeners with the scientific details, there are also other things you can do to really immerse your audience in the story.

To add extra impact, you might consider bringing something along to hand around the audience, for example, that new solar cell you've just made to show how light or how flexible it is. Visual effects like showing a video of how powerful your new energetic material is also help to engage the audience with the real-world relevance of your results. Making someone remember is all about making an emotional connection, which is also part of the reason why handouts can be such a useful tool in poster presentations.

Everyone has their own style and the main thing is that however you make your presentation stand out you have to be comfortable with your content and confident in your delivery. Just enough to get people talking afterwards, all for good reasons of course, is all you need.

As avid conference-goers ourselves, the editors of our family of journals have seen a fair few outstanding presentations, and perhaps even the odd one that might have stood out for the wrong reasons too! I asked them to share a selection of their best tips and memorable moments with me to help you make magic the next time you step into the spotlight.

