



研究成果を英語で伝えるスキルに磨きをかけたい皆さんへ：このシリーズでは、東京大学のウッドワード先生が、あなたの今の英語能力を使って成果をより効果的に上手に伝えるためのアイデア、作戦、ヒントを紹介します。また、日本語でのプレゼンにも役立つ多くのアイデアも見つかるでしょう。

By Invitation of the Editor-in-Chief

English Scientific Communication

Part 4—Presentation planning - winning over the audience



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In this series of articles we are considering concepts, ideas and strategies for effectively communicating science in English. Last month, we looked at some of the additional communication channels beyond our use of language, including the use of our voice, eyes, hands and bodies. Having established some key principles over the last three months, we now start to look in more detail at how to plan and structure a presentation. The starting point is to consider the audience.

Making a connection

It is easy, when worrying about giving a presentation, particularly in English as a non-native speaker, to focus all of your attention onto yourself and your performance. However, in reality, the audience is at least, if not more important, and should form the focal point of all your considerations for your presentation. Ask yourself some of the following questions:

- What is the educational level of your audience?
- What is the background knowledge of the audience?
- What is the audience interested in?

There are many different contexts in which you may be presenting science and it is important to tailor your presentation to ensure that it is a good fit to the audience. Presenting to a room full of schoolchildren is a significantly different proposition than presenting to a room full of chemistry professors! The principles, however, are the same. You need to ensure that the audience can relate to what you are saying, which means providing an appropriate context with respect to their existing knowledge

and interests. If you are lucky, the audience will be listening to your talk because they are inherently interested in the subject, but this is not always the case and sometimes you will be responsible for generating interest in what you have to say.

Perhaps a good approach then, is to write down a list of what you would like your audience to know or understand by the end of your presentation. Ask yourself if your list is reasonable—it is unrealistic, for example, to expect a 14 year old to understand the interpretation of a COSY spectrum, so adjust your list to match what is realistic based on who is in the audience, the length of the lecture and also the reasons for the presentation. By this I mean that there can be a wide range of purposes for attending or for giving a presentation (and ideally these two purposes should match). For example, a lecture to the public needs to focus more on explaining basic ideas and capturing the audience's imagination about a subject than a lecture to colleagues. Even in a research lecture, it is good to tell the audience just enough that they are keen to know more, which may lead them to ask questions in the Q&A or to go away and read more about the subject (hopefully your own work if it is published). This works much more effectively than trying to cram too much detail into your talk so that no one can really follow it properly and thus the audience loses interest. There is a limit to how much one can do in a presentation. For example presentations with large numbers of equations are seldom effective—much better is a presentation with only the key ideas clearly explained along with information on where to access more detailed infor-

mation afterwards. It is a very good idea to establish the appropriate amount of material and the level of detail before putting together your presentation, so that you can tailor the content much more carefully.

Take home message

As mentioned in a previous article, audiences are often watching many presentations one after another and you need to think carefully about how to make them remember you and yours. An important concept is the “**take home message**.” The idea is that you think of the single most important thing you would like the audience to remember after your presentation. The main objective of your presentation should be to ensure that members of the audience do indeed remember this after your presentation (even if they don't remember anything else), and hopefully for longer than 5 minutes! Having a “**take home message**” can really change the way you structure your presentation, so take the time before you start to choose the right message.

Introduction

A common mistake made by many presenters, both new and experienced, is to underestimate the importance of the introductory part of the presentation. This is pretty much the make or break period in which the audience either engages with your topic and makes an active mental effort to follow your presentation, or switches off and only half pays attention for the remainder. I used the words “relate to” earlier and they are of particular importance here. Most of your presentation will likely be technical and detailed while the introduction is the opportunity to draw the audience in,

by connecting what you will talk about to their own interests. This sounds like a difficult task, and it can be, but what is important is to find an appropriate context in which to set your discussion to provide a strong connection. If you are presenting to scientists in your own field, then this is usually quite straightforward. However, the further the distance between you and your audience in terms of background knowledge, the more important the introduction becomes for bridging the gap. For large separations, the best solution is to relate what you are going to talk about to real life in some way. This can be easy to do, if your science has obvious real world implications, but for more obscure topics, you sometimes have to work harder. This requires creativity and ingenuity but in my experience, the best presenters can always interest and sometimes captivate the audience, even with the most obscure of subjects. Devote some time to planning this carefully—for many presenters, they finish preparing a presentation and then think, “Oh, I really ought to include an introduction slide.” By paying careful attention to the introduction, you can make your audience much more interested and your presentation considerably more memorable.

Ask a question

One of the very best ways to gain and hold the attention of your audience is to **ask them a question**. Do not worry, you are not intending for them to shout back answers! The question should be simple enough that they understand it and can start to think about how it might be answered, interesting enough that they care about the answer, and complex enough that they are going to need you to help them arrive at the answer. Think back to your take home message—perhaps this should be the answer to the question?

The effectiveness of asking a question is another important example of how understanding how the human brain works can be extremely useful in designing effective presentations. The molecular biologist John Medina has a

website called “Brain Rules” (<http://www.brainrules.net>) which is very much worth visiting. He lists twelve important rules to remember with regard to how the human brain functions, and a number of them are of great importance to us as presenters. I will continue to refer to them here and also in future articles. The one we are interested in with regard to introductions and context, is rule number 4—“We don’t pay attention to boring things.” The most interesting subject can become extremely boring in the wrong hands and the most seemingly dull topic can be fascinating when delivered by a master storyteller. Think carefully not just about what you are going to present, but how to tell the story.

Keeping your audience's attention

It is very easy to lose the attention of an audience. Back in the second article in this series, we discussed the “thermodynamics” of how an audience receives information. It is now time to consider the “kinetics.” One of my colleagues in the UK used to represent the idea by plotting a graph of the distance between a student’s head and the desk throughout the course of a lecture! If we refer once again to John Medina’s brain rules, he describes the idea in terms of a ten minute rule—you will basically lose your audience’s attention about once every 10 minutes and when planning your presentation you need to think about how you are going to get it back—that means one intervention in a 20 minute talk, two in a half-hour presentation and five in an hour long lecture! How do you go about regaining the audience’s attention? John explains this in terms of needing to “do something emotionally relevant.” A good example would be using a little humour to break up the talk and change the atmosphere in the room. However, using humour is a risky business—some people can do it and others just can’t. The chances are you will already know if you are one of the people who can get away with it—if you are not sure, you should probably not risk it.

The solution involves thinking about your audience as human beings rather

than scientists for a few moments. Moving the subject away from the science and towards something more personal or emotional. Examples include recalling something entertaining/funny/disappointing/sad etc. that happened in the laboratory while you were performing that particular experiment, remarking on the way a particular idea is expressed differently in Japanese and English, relating the current topic to the place where the lecture is being held (particularly if you have travelled some distance to give the presentation) or adding an amusing picture related to the current topic.

Another possible approach is to use the question trick again. Ask a specific question and pause to let the audience think before rewarding them with the answer. It could involve, for example, calculating a value, identifying the number of stereochemical centers in a molecule or guessing the number of lines in a spectrum. The key is to turn the audience from passive receivers into active thinkers and thus recapture their attention.

Concluding

The end of your presentation is your chance to seal your take home message into your audience’s brains! Repetition and restatement of key points is very important. When I was a student, one of my lecturers told me that the key to giving a presentation was to “Tell them what you’re going to tell them, then tell them, and then tell them what you told them.” Relate what you have covered back to the context you established at the beginning and highlight clearly what you think they have learned during the presentation. Try to end on something memorable that will stay with them for the rest of the day.

Next month we will look at the next important part of presentation planning—putting together materials and data using presentation software and making sure we do so effectively.

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