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EFFECTIVE TECHNICAL PRESENTATION

1. INTRODUCTION

As a researcher or technical professional, you are frequently involved in technical presentations to gain or share information with higher management or colleagues — to convince them and to project or sell your ideas.

This article is designed to help in improving your participation at such meetings and to become a more effective presenter and communicator.

One of the major challenges you, as a technical presenter, face in managing a presentation is the 'starting trouble' explaining the purpose of your presentation. Anxiety is natural but fear is not. If you are able to channel your anxiety positively by following a few steps mentioned below, you may succeed in enhancing the impact of your presentation.

2. GENERAL TIPS FOR EFFECTIVE PRESENTATION

Organise: Better organistion of presentation will give you more confidence.

Visualise: Imagine the sequence of your presentation.

Practice: Rehearse a presentation standing up, as if the audience is in front of you. At least two full rehearsals are recommended; if possible, have somebody to assess you. Listen to the assessment, accept suggestions if you feel they are required, and improve your presentation.

3. PLANNING THE PRESENTATION

You should clearly ascertain the size of the expected audience, their knowledge background and their attitude. The level of presentation should match the level and intent of the audience.

3.1 Developing Objectives

You should develop a clearly defined objective for a presentation, for example, you may tell the audience about some project or explain implications of your new service.

Always remember that the main objective of technical communication is to reach certain level of commonness or understanding between you and the audience.

3.2 Allocation of Time

Sufficient time should be kept for discussions. Limit your talk to 20-25 minutes, because this, as experience indicates, is the time, which matches the most successful reaction. This period of oral presentation is equivalent to a paper with maximum length of 2500 words (or about 8 pages of A4 size). As a thumb rule you may follow the following time distributions.

Part of	Duration of presentation	
presentation	< 15 min	> 15 min
Introduction	20%	10%
Body	60%	80%
Conclusion	20%	10%
Question & answers	20% of the total time	

3.3 Organisation of the Talk

A good presentation should normally cover:

☆ An enthusing introduction,

☆ A clear statement of the subject dealt with,

☆ A brief description of the approach, and

☆ A forceful review of conclusions.

A well planned introduction is an essential ingredient of a successful presentation. It should serve as an appetizer for the audience to the rich menu that follows. It should be brief and meaty enough to capture the interest and attention of the audience and sustain it. Making it too long and digressive dissipates the attention of the audience, and attenuates the rapport with the presenter in following the subject matter that follows in which the presenter may be thorough and good in exposition.

This should be followed by a clear statement of the problem dealt with or the contents of the talk. Then the approach or methods/techniques employed relevant to the subject of the talk, and then the data and results may be presented briefly. Finally an emphatic review of the conclusions should be presented.

Since technical talks are normally meant for ready comprehension by the audience, you should present only essential technical details. Detailed data, methods and techniques should be kept ready for providing clarifications. You should mention briefly about this abridgement and how to get the detailed data or information. Frequent reference to the main theme should be made during the course of your talk.

3.4 Linguistic Aspects

Simple sentence construction and frequent use of the first person in the active voice are highly desirable. Let the more effective verbs, instead of abstract nouns with involved construction, do your communication. Use of parenthetical explanations and asides must be made short and not too frequent, and should be interesting or humorous where possible.

4. DELIVERING THE TALK

4.1 How to Start ?

The best way to begin a meeting and to eliminate the pre- meeting jitters is to project a visual of the agenda. It forces immediate attention on to the matter at hand. It tells your audience that you are organised, mean business, have lots of things to discuss and need their attention.

Now you are ready to go into your presentation. If you have put the key points on the visuals you don't need a script. The margins on cardboard transparency frames can carry all kinds of notes to keep you on track. Remember you are looking at the overhead projector while it is on. Your audience is looking at the screen. When you have covered the information on the visual, turn off the projector switch and attention will immediately shift back to you.

Choose a relaxed pose. Inhale deeply a number of times before you start.One or two gentle steps either side-to-side or towards the audience will help loosen muscular tension.

The feeling of intimacy by the audience will help you in establishing proper communication. Look at individuals in the audience, try to make the presentation similar to an inter- personal communication.

4.2 Essential Points to be Observed

The visual aids are meant for viewing, only for a short time on the screen and you should not read out the contents on them. You may explain the points or ideas given in them. The audience lose interest if they are required to digest details more than that can be assimilated

at a glance. If details of an equipment or flow diagram are to be presented, only a small and relevant section of it should be shown. You should give the audience a few seconds for studying every slide or transparency before or after you explain the contents. Talking while the audience read the slide, distracts their attention.

You should speak loudly enough for everyone in the audience to hear. It is worthwhile to have a friend in the audience to give you an indication whenever the voice become inaudible. If a portable mike is not provided, you should not continue to speak while you move away from the fixed mike.

It is embarrassing to show your back to the audience; speak to the audience and not to your notes, blackboard or the screen.

5. USE OF VISUALS

5.1 Function and Effective Use

Human being are visually oriented from birth. We are influenced by all kinds of visual stimulation (advertisements, cinema, road signs, television, etc). Visuals help the speaker control the presentation and maintain the group's attention. 90% of the message we hear is misinterpreted or forgotten entirely. We retain only 10% of what we hear. Adding appropriate visual aids to your talk increases retention up to 50%. They are vitamins to oral presentations.

The use of visuals naturally forces you to organise your thoughts concisely. Simply list the key points you want to cover, so that people can see them. A few tips are provided below.

☆ Do not use visual aids to impress your audience with complex graphs and tables.

☆ Use KISS principle; Keep It Short and Simple.

☆ Simple charts with few words are the most effective. Limit the information to what your audience can grasp rapidly.

☆ Use short words, short phrases, and short sentences.

☆ A combination of upper and lower case letters is easier to read than all upper case letters.

☆ Avoid putting too many characters on a line. Try to limit it to about 25 characters, but remember that the number of characters you can display in a line depends on the text size.

☆ Make list elements parallel; they should be either all phrases or all sentences. Preferably, they should all start with the same part of speech such as a noun or a verb. And they should all follow the same capitalisation and punctuation style.

☆ To show the relative importance of topics, ideas, or items, put related items under the same bullet item.

☆ To give your presentation a unified appearance, use the same bullet shape/or colour for all the bullet slides.

☆ Round off large numbers in a column slide to make them easier to read and comprehend.

☆ Use only a few key words in a column slide/visual.

☆ Do not use more than 20 items in a single column chart. For a two-column chart, use at most ten lines; and for three-column chart, do not use more than seven lines.

☆ When choosing a text size, consider the output medium you will use and the number of characters on each line of the chart.

☆ In an organisation chart, illustrate only one type of hierarchy such as people, functions or divisions.

☆ If you have two or more thin slices in a pie chart, combine them in a single slice under a label like, 'others'.

☆ Units of measurement should preferably be given as per the relevant IS Standard. However, if certain such units are not common, more common units that are expected to be familiar to the audience may also be indicated.

5.2 Importance of Colour

The sense of colour is a product of our nervous system. It is a sensation like taste or smell. Colour perception is subjective. Individuals can have vastly different colour discrimination capabilities due to differences in the visual system. Colour is also subject to contextual effects, in which adjacent colours influence one another. Colour is an important factor that influences our perception and understanding of the visual material. Use of colour in graphics can help hold your audience's attention and make complex information easier to understand. Colour is used in graphics not only because it looks good, but because it adds to information.

5.3 Guidelines for Effective Colour Usage

☆ Avoid simultaneous display of highly saturated, spectrally extreme colours.

☆ Avoid pure blue for text, thin lines and small shapes.

☆ Older viewers need higher brightness levels to distinguish colours.

☆ Colour changes appearance as the ambient light level changes.

☆ All colours are not equally discernible.

☆ Do not overuse colours.

☆ Group related elements by using a common background colour.

☆ Use brightness and saturation to draw attention.

☆ To emphasize a slice, make it the darkest or brightest colour.

☆ Avoid putting red and green next to each other in the chart; one out of twenty-five males are colour blind and cannot distinguish between the two colours.

5.4 Directions for Slide Projection

☆ Each slide should contain only one main idea.

☆ Limit your slide to about eight lines of text. If you have more than eight lines consider making a second slide.

☆ Use double or more spacing between the lines in a single column slide.

☆ Make the type large enough so that everyone in the room can read it. Thumb rule is if you can read the writing on the slide without the help of a magnifying glass, it will be legible for a large audience.

☆ Display at least three but not more than 20 boxes in an organisation slide.

☆ Use a landscape format for an organisation slide.

☆ Slides should be indexed on the right hand top corner by a bright coloured dot; this helps in proper loading of the slide magazine/carousel. Sequence number can also be marked to ensure proper sequence in the presentation.

☆ Combination of cardboard and plastic frames/mounts should be avoided as this may cause jamming in some projectors.

☆ Most screens are designed for horizontal slides and mixing of horizontal (landscape orientation) and vertical (portrait orientation) slides should be avoided as far as possible.

☆ If a slide is to be used again and again, duplicates of the slides must be used rather than running back and forth through the projector.

☆ Matter for slides should be prepared with electronic typewriter, phototypesetter, or a DTP system with a laser printer. For good legibility, the letters and symbols must have a certain minimum size. Professionals recommend 15 x 23 cm (6 x 9 inch) size for the of text in the camera ready copy and the minimum letter size as 6 mm (1/4 inch) high.

5.5 Directions for Overhead Projection

With this 'personal' presentation tool

★ Face your audience. You will be able to pick up audience reactions immediately and make changes on-the-spot, if necessary.

★ You can present to any size of the group in a fully-lighted room. The result is better audience attention and participation.

★ By controlling the light (most of the overhead projectors are fitted with light dimmers) attract attention of the audience, whenever necessary.

★ The overhead projection transparency sheets must be carefully checked before matter is written on them. They must be highly transparent, free from scratches or folds. Writing or drawing on them must be done using suitable instruments by persons skilled in such writing. Different colours and appropriate colour combination for the matter would improve readability and gain attention of the audience.

★ If you do not want to reveal the entire content of the slide in the beginning, disclose the matter in the transparency sequentially using a sheet of paper.

★ The transparency can be prepared by hand using transparency pens or by using an office plain paper copier.

5.6 Pre-presentation Checks

A few minutes of planning, checking the equipment and seating arrangement can prevent disasters. A presenter can usually exercise a degree of control over his speaking environment. There are a few items you can check before you start.

Overhead Projectors : Make sure that the bulb is not burnt out and that there is a spare bulb available. Cleaning the projection screen and the optical system of the projector can sharpen the image. You may need a few blank transparencies and pens for use during your presentation.

Slide Projectors : Check whether it is in working condition. Is the lens large enough to project the image size you need? Does it have a remote control that works, or can you get help from someone to operate it for you? Have you practiced using the machine?

Handouts : Are handouts easily accessible and in order, so that they can be handed out with minimum disruption? Have you arranged for assistance in handling them out, if needed.

Pointers : Will you need a pointer? Is it within reach, so that you can use it when you need it during the presentation?

Microphones : If speaking to more than 50-100 people you will probably need a microphone. Before your presentation you may request for a microphone that allows you to move around — a mike that will hook on to your jacket or tie — and allow you to keep your hands free.

Lighting : Do you need to dim the lights in the room? Check to see if there is a dimmer switch. Some light in the room is desirable in 35 mm slide presentations. Check to see that all the bulbs and fixtures in the room are working.

6. REASONS FOR FAILURE OF A PRESENTATION

★ Failure to set goals for the presentation,

★ Lack of organisation of the presentation,

★ Failure to set limits on the subject,

★ Failure to plan for proper use of the time available,

★ Overcomplexity of visual aids,

★ Use of terms not familiar to the audience, and

★ Failure to prepare properly for the presentation itself.