CHAPTER 28

Oral Presentations

Every scientist should be able to prepare and deliver a good oral presentation. Although most scientists desire to present their work at international conferences, many of them also fear having to present a talk, especially if they are non-native speakers. Unfortunately, as with scientific writing, most scientists are not formally trained in this art. However, being a good presenter is something that can be learned. For many people, this art is much easier to master than the art of writing a paper.
28.1 BEFORE THE TALK

ORAL PRESENTATION GUIDELINE 1:
Prepare your talk well ahead of time.

ORAL PRESENTATION GUIDELINE 2:
Practice, practice, practice.

ORAL PRESENTATION GUIDELINE 3:
Get to know your audience.

The two most important points in becoming a good presenter are being prepared and practicing. As soon as you know that you will speak, begin preparing your slides. Preparing your slides will already make your subconscious mind work on the words for the actual talk. To plan the best possible talk, you have to know your audience, however. Find out to how many people you will be presenting as well as their level of expertise. Design your talk accordingly in terms of its direction and necessary background information.

To deliver your talk well, it is of utmost importance that you practice and practice and practice. Without practicing a talk, you will not know whether you stay within the given time limit. Nor will you know if your flow of words is smooth or if your voice has the right pitch. Practicing will make you realize at least some of these potential problem areas. Consider videotaping yourself, or ask someone else to do this for you. Review the video and note any areas that may need improvement. In addition, take advantage of opportunities to give and practice presentations such as in departmental talks.

28.2 CONFERENCE TALKS AND ABSTRACTS

Getting invited to speak at a conference is an important recognition of your work and may not only help you to gather new ideas but also increase your visibility in the field. If you would like to get invited for a talk at a conference, you usually have to submit an abstract. You can submit abstracts for talks for preliminary work and pilot studies as well as for more polished work.

Sending in an abstract paper to a conference is not just a requirement to be considered for a talk, it also allows you to get initial feedback for work that you have not yet tried to publish. Thus, your abstract has to accurately summarize your work. As this abstract also has to convince the conference committee to invite you for a talk and the conference audience to attend your talk, it needs to take all these readers into consideration.

A conference abstract is usually longer than an abstract for a research paper. It may be 350 to 500 words long. The underlying format for a
conference abstract is similar to that of a research paper but includes a title, a longer background/context portion, and sometimes a few references. The overall organization consists of

- Background/context
- Question/purpose
- Experimental approach
- Results
- Conclusion (answer)/implication
- (References)

See Chapter 14 for a more detailed description of these elements.

It is important to make a good first impression when submitting your conference abstract. Follow guidelines exactly or you may risk being eliminated from the start. Conference abstracts are usually considered a publication of a sort and many are published as a supplement to the association’s journal.

Submit your abstract on or before the due date and in the required way, usually electronically or by e-mail. Ensure computer compatibility of documents, and include your name, title, organization, and contact details.

Abstracts are typically reviewed anonymously. A few conferences will send comments from reviewers about your abstract; this is very valuable information, and you should request it if available. When you present the same research at more than one conference, frame each paper a bit differently to match the focus of each conference.

28.3 CONTENT AND ORGANIZATION OF A SCIENTIFIC TALK

Content
To present a good talk within a given timeframe, you need to:

- Choose what is most important
- Display it in clear, uncluttered, visually attractive slides
- Explain each slide in slow, simple, easy-to-understand English

The content of a talk is similar to that of a journal article with an introduction, results (combined with overview of experimental approach), discussion, and conclusion. However, an oral presentation needs to be structured and worded differently from a written paper. If you want to deliver your presentation well, do not just read it off a written text. Understand the differences of how information is extracted by readers versus listeners. Whereas text can be read and reread at your own speed, listeners get a chance to listen to a piece of information only once and at the speed the presenter sets. Similarly, listeners have no control over the order or type of information they will see and hear, whereas readers can easily scan headings and subheadings and skip ahead when they want. In addition, when presenting, the emotions of a speaker can easily be conveyed; this is much harder to do in writing.
If you have to present your talk in a language you do not know well, consider persuading a native speaker to listen to your talk and comment on pronunciation. Alternatively, ask a native speaker to make a tape recording of the talk for you. Listen to the tapes a few times. Note the pronunciation of difficult words and the intonation of sentences. If a translation service is provided for the talk, it’s imperative to speak slowly so the translators do not get rushed in the translation—this cuts time off of your talk, as well. Practice the presentation as often as possible.

Layout of Talks of Various Lengths
Whether you are presenting a short, 10-min conference talk or a full hour seminar, follow the overall format of introduction, results, and discussion for your talk. Depending on your target audience, different numbers of introductory slides may have to be included. For a nonscientific audience, it is particularly important to include more background slides, as most speakers lose their audience in the first few minutes by failing to give an appropriate introduction to the problem.

Shorter talks are usually more difficult to prepare and to present than longer talks. For shorter talks, you need to be extremely selective of what is the overall most important information for each of the sections, and you need to prepare slides having this focus in mind. Generally, you will have to reduce the number of background slides for shorter talks and concentrate primarily on the main findings and their interpretations in the rest of the slides. In fact, depending on your topic and audience, you may have time to present only one or two main findings.

When you are time limited, consider skipping the title slide as well as the overview slide. Instead, just verbally inform the audience about your talk’s overall title and about the outline for your talk. Do provide a concluding/summary slide in all cases.

General Organization

**ORAL PRESENTATION GUIDELINE 4:**

As an overview for your presentation:

Tell the audience what you are going to tell them
Tell them
Tell them what you have told them

**ORAL PRESENTATION GUIDELINE 5:**

Organize your slides and include:

Optional: Title slide
First slide: Overview of talk
Second slide: Introduction and background
Subsequent slides: Present what you studied and how you studied it. Present your results.
Final slide: Present your conclusions and the main points that support it.

Optional final slide: Use a credit slide in which you acknowledge those who worked with you or financed your research.

Start your presentation with an overview of the talk by telling the audience what you will speak about: introduce the overall topic, mention how you will present your findings and that you will then summarize what you have told them in the talk.

Follow this overview with a presentation on the background of the overall topic that funnels down to your work, the unknown, and then the overall purpose/question of your project. State your experimental approach briefly when you present your results, and discuss findings in the general scientific context. In the final slide, present your interpretations and conclusions. When you are finished talking, thank the audience.

28.4 VISUAL AIDS

ORAL PRESENTATION GUIDELINE 6:
Know how to use visual aids.

Competent speakers must know how to use visual aids to clarify and reinforce their talk. Visual aids come in various shapes and forms. PowerPoint is currently the most powerful and impressive way of presentations. PowerPoint slides make a professional and effective presentation and can easily be changed at the last minute if needed. In PowerPoint presentations, you can also include short cartoons and jump back and forth between exhibits easily. You can either show the whole slide at once or build up an illustration using animations. Appropriate spots on the slide can be indicated using a laser pointer.

To present these slides, you need to know how to use a projector and be aware of potential problems arising when using different computer programs and systems. Particularly, when your presentation has to be converted from a Macintosh to a PC or vice versa, you need to check that figures and font types convert properly. Also check conversion between different programs or program versions on the same systems. Do not wait until shortly before your talk to check whether your slides will work correctly, however. Conversion problems may take time and expertise to resolve. Try out programs, equipment, and set-ups ahead of time, and bring your computer as a back-up. Be prepared to give the talk even if the slides fail.
As the speaker, you should take care not to obtrude the projection with your head, hands, or other parts of your body. In addition, ensure that you are not obstructing anyone’s view.

Format of Visual Aids

**ORAL PRESENTATION GUIDELINE 7:**
Prepare visual aids well ahead of your talk.

**ORAL PRESENTATION GUIDELINE 8:**
Make exhibits look attractive.

**ORAL PRESENTATION GUIDELINE 9:**
Keep exhibits simple.

**ORAL PRESENTATION GUIDELINE 10:**
Think graphically.

Prepare visual aids well ahead of the meeting to give yourself time to check, replace, or improve them. Visual aids, regardless of whether you are using overheads, slides, or PowerPoint presentations, should be comprehensible on their own. Keep them simple. Your slides must be clear, legible, and easy-to-understand. Avoid non-standard colors, fonts, graphs, and abbreviations. You need to create exhibits that add to, not distract from your work. Your exhibits should be visually pleasing but professional. Moreover, individual slides should be recognizable as being part of a set (same colors, style of fonts and emphasis techniques).

Before you can prepare your slides, you need to decide on what and how much to include in your talk. A good rule of thumb is to communicate one main idea per slide, and emphasize this central message when speaking. Prepare slides with the audience in mind. The total number of slides you will be able to display in your talk depends on the time you are allotted to speak (see also Sections 28.2 and 28.3 for more information on content for various talks and time limits).

Format and Color

When presenting a talk, there is no substitute for clear, graphical visual aids. To create visually attractive slides, pay attention to how other people present colors, fonts, and graphics on slides that are easy on your eyes. Avoid bright colors, and avoid red/green (or blue/orange) color contrasts, as some people are color blind to these. Look for high contrast between background and writing or figures. Choose dark text against a light background or vice versa. Medium to dark blue background with white or
yellow writing, for example, is commonly used and easy to read because of the high contrast between the background and writing.

Not only do your slides need to be visually attractive, they also should be simple. Your slides should be informative, but discipline yourself to use as few words as possible to convey this information. Use your voice to fill in the rest.

To create effective slides using as few words as possible, it is essential to know how to write clear but brief bullet points. Slides that are text heavy are usually constructed for the benefit of the presenter rather than for the benefit of the audience. Avoid such slides. To make your slides more attractive for your audience, use a maximum of 40 words per slide, 40 characters per line, and no more than 14 lines per slide for “word slides.” Use key words and phrases—they are more effective than whole sentences. Avoid numbering items in a list. Use bullet points instead. Try to stick to three to five words per bullet point and to no more than seven bullet points per slide. At the same time, keep punctuation to a minimum, and start text at the left rather than in the center.

Visual fatigue is the biggest enemy of presentations, especially if you ask your audience to sit in a dimly lit room for 30 to 60 min. With just three to five words per bullet point, you will have to fill in the rest of the information, and the audience will have to pay attention to you, the speaker. This results in a more animated presentation, which is more interesting for the audience.

If your slides contain too much text, your audience will concentrate on reading the text and not listen to what you have to say, or they will be listening to you and not pay attention to what is on the slide. Neither case is what you as the presenter really desire. Here is an example of a slide that contains too much text.

Example 28-1 Text slide

Overview of the Yale School of Medicine
- Founded in 1810, the Yale School of Medicine is a world-renowned center for biomedical research, education and advanced health care.
- The School is viewed internationally as a leader in biological and medical research.
- The Yale School of Medicine has over 900 faculty members and consists of 9 basic science departments and 17 clinical departments.
- The School of Medicine consistently ranks among the handful of leading recipients of research funding from the National Institutes of Health and other organizations supporting the biomedical sciences.

To improve a text-heavy slide such as the one shown in Example 28-1, you need to decide on what information in each bullet point is really important and/or which bullet points can be omitted. Then list the important information by itself in a bullet point and omit the rest. A possible revision of Example 28-1 follows.
Yale School of Medicine Overview

- Founded in 1810
- Leader in biomedical research
- Over 900 faculty members
- 9 basic science departments
- 17 clinical departments
- Top biomedical research funding

In the revised version, the bullet points have been reduced to their main piece of information and are visually distributed better on the slide, all of which is preferred by the audience.

Note that lettering should be large enough. Ensure that the minimum font size is larger than or equal to 18 points. Use a sans serif font type such as Arial. Sans serif font types are easier to read than serif ones, such as Times New Roman. Lowercase lettering, with initial capitals where needed, is also easier to read than lettering that is all in capitals. Use maximum contrast and boldface for maximum legibility. All lettering on exhibits should be in the audience’s language. Add emphasis by using colors and/or visuals such as photographs or figures where appropriate. Put the most important information in a larger print size. Italics can also be used to add emphasis, but avoid underlining or exclamation marks, as they are not considered effective.

If we further revise Example 28-1A, by adding a different background as well as a picture and using different styled and shaded text for
the heading, a more visually attractive slide results, as shown in a further revision.

Revised Example 28-1B makes for a much more attractive and interesting slide than Example 28-1A. This is because Example 28-1B not only has a shaded background but also a pleasing picture that directly relates to the information on the slide.

Figures and Tables
Figures and tables on each slide should have a title, placed at the top and separate from the rest of the material by extra space. Use names for different groups rather than numbers or letters. However, do not simply transfer published figures or tables onto your slides. Their lettering is often too small, they do not have a heading, and more often than not, they contain additional information that is not needed for your slide.

Choose graphs rather than tables. Bar graphs are often preferable because their message can be quickly understood. In bar graphs, keep the number of bars to a minimum. If you can avoid using tables, do so. If you have to use a table, keep it to a maximum of four columns and seven or eight rows, including the title and column headings. Write all text horizontally, including labels for vertical axes if possible. For graphs, curves should be smooth and the lettering clear (i.e., Arial or Helvetica). Symbols must be easy to tell apart. Do not include a figure legend, but provide a key for figures if needed (see also Chapter 9 for advice on good lay-out of figures.) Make sure that exhibits are aligned well within the slide and with respect to each other and possible text.

An example of a well constructed slide containing figures is Example 28-2.
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(With permission from Patty Lee, modified slide; and Robert Homer, EM images)
The figures and the text in Example 28-2 have been well placed. They are aligned nicely, visually pleasing, and easy to grasp. They are also clearly labeled, making for a very balanced slide.

Similarly, the schematic displayed in the slide for Example 28-3 is well balanced and easily graspable. The author could have used a text slide to explain the concept, but the schematic brings the message across much more effectively and memorably.

Example 28-3 Slide with schematic

(Agriculture and bacterial and fungal-based soil food webs)

Example 28-4 Slide with bar graph

Neurite outgrowth on increasing concentration of myelin substrate

(With permission from Betty Liu, modified)
Note that in this slide, the title for the graph is at the same time the title for the slide. Depending on how your presentation is structured, it is possible to compose such titles if your slide contains a single figure. Note also that the slide contains no figure legend, but a key is shown for the graph. The presenter's words will fill in any additional necessary information and summarize the slide.

In other slides, the title may serve as a summary or overview of a finding depicted in the slide. This use of a title will reduce the number of words that need to be placed on the slide, as shown in the next example.

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**Example 28-5  Slide with result in title**

**Successful axon regeneration is in the PNS, not in the CNS**

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28.5 PREPARING FOR A TALK

Time Limit

**ORAL PRESENTATION GUIDELINE 11:**

Stick to the time limit.

It is customary to assign a limit to the length of a speech. Adhere to this time limit. Find out whether you tend to speed up or slow down your talk during delivery. Allow for it during rehearsal. On average, you will be going through one to two slides per minute. Note that this is an average number, which very much depends on your slides. For some slides, you may spend considerably more time. For other slides, you may be able to go through them in substantially less time than the average. The only way to know how long it will take you is to time yourself when practicing your
talk. Know that practicing in front of a small group of colleagues is more
helpful than practicing in front of a mirror.

Nothing angers an audience or the organizers more than a speaker
who goes overtime. To help you better keep track of the time, place a
timer on the lectern. If you find that you need to leave out some impor-
tant slides to stay within the time limit, do so. Do not speed through
your talk. You run the risk of losing your audience if you present your
material too fast.

If the chairperson signals to you that your time is up, summarize
any remaining material, and give your conclusions immediately. You can
prepare for this eventuality by inserting a hyperlink to the last slide stra-
tegically on some previous slides. This hyperlink may be disguised in a
design feature or text of the slide.

Notes

**ORAL PRESENTATION GUIDELINE 12:**

Prepare notes.

Notes are the road maps for speakers. Too many notes can cause prob-
lems, however, and so can too few. To record notes, use index cards (3 in. ×
5 in.) or write into the Notes section of your PowerPoint slides and display
them using the presenter’s view during your presentation.

Index cards are a convenient size to handle. They easily fit into a
pocket and are not visible to the audience. Do not memorize a speech.
Instead, strive to maintain an image of spontaneity. Most important, do
not ever read a speech unless you are forced to by legal requirements or
time restrictions.

Your notes on the index cards or on the computer should be easily
readable—use extra-large print if necessary. Notes should be in outline
form and should not be written in sentences. There are, however, a few
exceptions when notes should be written out in full:

- Write out the opening of your speech.
- Write out the closing section of your speech.
- Write out transitions on note cards.
- Write out quotations in full.

**Conquering Nervousness**

No human has ever or will ever conquer nervousness. Only experience
teaches a person to control his or her nerves and to appear confident to
the audience.

Know that an audience usually will watch the body language of a
speaker even more than listen to the speech. Thus, you need to use your
body to communicate the message you want to present to your audience.
Confidence is the key: The most powerful way to appear confident is to look directly at the audience. You should also check your appearance and dress. Clothes should be immaculate and hair well groomed.

Study your surroundings. The more familiar you are with your surroundings, the more comfortable you will feel. Take a number of deep breaths while being introduced. If you have prepared and rehearsed the speech adequately, you may feel more comfortable. If your notes are well written, you are assured that a glance at them will put you back on track.

In your notes on the cards, or in your notes on screen, write out the opening sentence in full. Having it available in full will give you comfort in knowing where to find it if you need it. Deliver the opening sentence firmly and accurately—such delivery will give you confidence to continue. The early sentences of a speech should have been practiced over and over again, as confidence builds on itself. Nervousness normally abates when you realize that you are off to a good start.

Practice is the only way not to act in peculiar ways. Practicing in private helps only to a certain extent, however. Actually speaking before an audience is the only effective answer.

**Self-Improvement Suggestions**

To give yourself the opportunity to present the best possible talk, consider doing the following: Read aloud. Talk to yourself. Read to your children. Address your dog, and above all, practice in front of your colleagues. Hearing your voice is important as is finding the right intonation. Poetry makes the best material for practicing reading and speaking. Get away from the monotone. Learn to add excitement to your voice, and learn to add pauses for emphasis. Have fun while you are reading. Learn to read without gluing your eyes to the printed text. Use a recording device to play back your performance. Check quality of voice, word flow, delivery speed, vocabulary, grammar, and body movement. Become aware if you are uttering appalling sounds such as "ums," "ahs," "uhhs," and "You know." If so, break this habit. Videotaping yourself or recording your voice and playing back the tape is usually the best remedy for this annoying habit. Go over what you want to say often enough that the proper word will not be difficult to conjure. Moreover, actively seek speaking opportunities. In short: Practice, practice, practice.

Other important points
Be yourself. Being natural is the most valuable asset of a speaker.

### 28.6 GIVING THE TALK

**Vocabulary to Know**

- Dais or rostrum—a raised platform
- Podium—specialized dais used by orchestra conductors
Pulpit—specialized dais used by clergymen
Lectern—reading desk

Most speakers perform standing on a dais behind a lectern.

**Setup**
Before you present any talk, you should check the setup. Familiarize yourself with the room as well as with the equipment. Check lighting, plugs, chalkboard, and presentation equipment.

If you are planning to give a PowerPoint presentation without using your own computer, make sure your PowerPoint file is compatible with the program of the computer and the projector that you are planning to use. Make sure your notes are in the proper order. Last, but not least, get the correct pronunciation of the name of the person introducing you.

**Going to the Lectern**
Your movements should be unhurried and dignified. Do not begin your speech before you reach the lectern. Also, do not begin as soon as you reach the lectern. First, place your notes on the lectern. Place any other material you may need next to your notes, such as a pointer, a watch, or some water. Once you have your materials in place, compose yourself, and look out at the audience. Then thank your introducer and begin your speech.

### 28.7 VOICE AND DELIVERY

**Oral Presentation Guideline 13:**
Make sure you can be heard by the entire audience.

**Oral Presentation Guideline 14:**
Speak neither too fast nor too slow.

**Oral Presentation Guideline 15:**
Avoid appalling sounds.

English is a language in which stress is crucial. Although pronunciation is important, it is less important than using the correct stress. If you have the stress right, you should not worry about having some kind of accent. If you have trouble pronouncing words correctly, it may help to put accent marks on syllables to be stressed in your notes and to mark places where your voice should pause. You may also want to underline phrases to emphasize.

Make sure you can be heard by the entire audience. Do not speak too softly. Soft speech signals that the speaker is uncertain. However, do not blast the audience out of its seat by the volume of your delivery either.
Pay attention to the pitch of your voice. Higher tones of pitch may lead the audience to assume that a speaker is less professional and more childlike. Speaking in deeper, fuller tones makes your voice more pleasant to listen to and can be achieved by using the diaphragm or lower throat to control the pitch of your voice rather than the upper throat or the nasal passages.

Speak neither too fast nor too slow. A good talk requires speech that is slower and clearer than in normal conversation. Speakers who are nervous often speak too fast. Try using a deliberate pace in speaking. Listen to yourself as you talk, and talk only as fast as you can comprehend it.

The Most Important Do’s and Don’ts for an Oral Presentation

**Do**

- Memorize the first few sentences
- Use a deliberate pace in speaking
- Look at the audience as much as possible
- Simultaneously show on your slides the information you are providing verbally
- Explain everything that is on a slide
- Show all key points on the screen
- Proofread your visuals for spelling
- Use spoken English
- Use simple words but technical terms
- Use uncluttered, visually attractive slides
- Use informative headings
- Be yourself—it is the most valuable asset of a speaker
- Pay attention to your body, arms, hands, and legs
- Dress appropriately

**Don’t**

- Do not look only at the screen
- Do not look only at your notes
- Do not read word for word from your PowerPoint slides or from your notes
- Do not pace across the front
- Do not utter appalling sounds such as “ah” and “um”
- Do not speak in written English
- Do not fiddle with objects or play with your hair
- Do not read subheadings
- Do not use uninformative headings or text
- Do not skip over information on a slide
- Do not argue with a questioner in the audience
28.8 VOCABULARY AND STYLE

Word Choice

**ORAL PRESENTATION GUIDELINE 16:**
Use smoothers and transitions.

Words used verbally are different from those used in written communications. When presenting a talk, you need the "smoothers" and soft transitions that are typically edited out in final drafts of published research articles. You need these soft transitions in your voice but not on the slides.

ESL speakers need to pay particular attention to the difference between written and spoken language. When you listen to native speakers talk, consider preparing a list for yourself that contains soft transitions. Do not overuse such smoothers, however. These transitions could include, for example:

- ... and, yes, the...
- ... actually...
- ... well, ...
- ... anyhow...
- ... okay...
- ... let's see—...
- ... once again...
- ... all right...
- ... so...
- ... for example...
- ... just as an aside...
- ... now...
- ... please...
- ... sorry...

As with soft transitions and smoothers, overview words and phrases are used commonly in talks but not in written presentations. Examples of overview words and phrases include the following:

- I am going to present...
- I would like to...  
  What I am going to talk about is...  
  To start,...  
  This talk is about...  
  My presentation deals with...  
  Then I am going to discuss...  
  At last, I would like to...  
  Now we move on to...  
  I want to spend some time on...  
  For the rest of the time...  
  On the next slide...
Unlike overview words and smoothers, jargon is not preferred or accepted in a talk. Thus, get rid of the jargon (see Chapter 2, Section 2.4.) Listen to a recording of yourself. Do not use coarse words or profanity in a speech. Know your audience: Adjust the use of technical words accordingly, but never talk down to an audience, and do not use sexism or racism.

Grammar and Sentence Structure
Make a conscious effort to speak in reasonably short sentences. Do not let occasional slips of the tongue bother you. Correct yourself calmly and keep going.

Anecdotes, Jokes, and Personal Experiences
Do not forget that the message is the important factor. A joke is purely supplemental. Therefore, do not feel that your talk absolutely has to have a joke or funny cartoon. Many successful, clear presentations do not. If you do include humor in your presentation, ensure that it is not offensive to anyone in the audience and that your audience will understand the joke.

Personal experiences enliven and reinforce points made—provided, of course, that they fit logically into the speech. If you feel like telling your audience about a personal experience, I encourage you to do so.

28.9 BODY ACTIONS AND MOTIONS

ORAL PRESENTATION GUIDELINE 17:
Be conscious of body movement.

ORAL PRESENTATION GUIDELINE 18:
Keep eye contact.

ORAL PRESENTATION GUIDELINE 19:
Face the audience.

ORAL PRESENTATION GUIDELINE 20:
Stay within the presenter's triangle.

ORAL PRESENTATION GUIDELINE 21:
Use gestures.

Hands and Eyes
Be very conscious of head and eye movements. Eye contact with the audience is essential. Look at individuals in the audience, but do not exclude sections of listeners. Look at different sections of the audience at least 5 to
10 seconds at a time. If it distracts you to look at individual faces, you can look in between faces but at the level of faces for a large audience.

Do not look at your notes excessively. PowerPoint slides especially tempt speakers to glue their eyes on the computer screen. Resist this temptation; keep your eyes on the audience. Also, do not fix your eyes on a spot way beyond the EXIT sign at the back of the room.

**Body**

Keep the front of your body facing the audience as much as possible. Avoid hiding behind the lectern. Consider stepping out next to the lectern occasionally or moving closer to the audience at times, but avoid turning your back to the audience and speaking at the same time.

The best position for a presenter is on the left side of the room or screen as seen from the audience when facing the screen (Figure 28-1). This position will not only ensure that you do not block the projection of your slides but also that you will not block the view of the audience. It is also better to work your bullet slide from the left side, as text is written from left to right.

**Arms and Hands**

Use gestures to reinforce and complement your talk. Gestures should be smooth and not jerky and not a wild, windmill style. When you are not using your hands and arms, let them hang naturally. Do not stick your hands into trouser pockets. Do not grip the sides of the lectern. Do not cover the front of your body with your arms or fold your hands. Do not use your hands to straighten your clothing, rub your nose, explore your ears, smooth down your hair, or play with keys, bracelets, and so forth. Do not stand rigidly.

If you are using a laser pointer, learn how to use it correctly. Above all, learn where the “Off” button is. To use a laser pointer correctly, learn

![Figure 28-1 Ideal presenter's location](image-url)
to employ a single, steady spot of light to show the audience where to look. Keep the light pointed at the spot 2 to 3 seconds and then turn it off. Pointing to items is most effective if you do not talk while you are pointing the laser to the point of interest. Talking will distract the audience from where to look. Exceptions exist such as when you are explaining a flowchart or comparing items on a slide. Hold the laser pointer in the hand closest to the slide presentation so you do not have to cross your body with the pointer or turn away from the audience when pointing out things on the screen. If your hands tend to shake while you are pointing, consider supporting the pointing hand with your other hand, or resting it on the lectern.

Feet
Your feet should be securely on the floor, each leg carrying an equal share of your body weight. Balance may be shifted occasionally but only for body comfort. Do not teeter back and forth or pace. Stay at the lectern unless you need to point out data on a slide or exhibit. However, when you are engaging the audience directly, outside the formal talk (during question and answer session for example), step away from the lectern to its side or move closer to the audience. When you show slides, turn halfway toward the screen rather than turning your back on the audience. Face the audience again after pointing out relevant parts of each slide. In general, your feet should neither be seen nor heard.

28.10 AT THE END OF THE PRESENTATION

**ORAL PRESENTATION GUIDELINE 22:**
Make sure that you are in charge.

**ORAL PRESENTATION GUIDELINE 23:**
Stay calm and polite.

When your speech is ended, stand for a short moment doing nothing. If your words and the tone of your voice do not make it clear that you have finished, you can thank the chairperson, or just say “Thank you” and stop. Do not worry about ending a bit early. No one has ever been upset if a speaker ended early, but the audience is easily upset if a speaker ends late. If questions are to follow immediately, stay at the lectern. Do not ask for questions yourself—this is the chairperson’s job. Acknowledge any applause or “Thank yous.” Gather your notes deliberately; also gather the remainder of your items. Then walk back to your seat dignified and unhurriedly.

28.11 QUESTIONS AND ANSWERS

How to Answer Questions
Often an oral scientific presentation is followed by a brief question-and-answer period during which anyone in the audience can ask a question of
the presenter. Many, if not most, presenters are nervous about this period, especially about being asked questions to which they might not know the answer. The question-and-answer period is particularly frightening for nonnative speakers. The following are a few pointers to help ease you through your concerns.

Anticipate questions before the talk already. Try to look at your talk from the audience’s point of view and envision what questions you would be asking. Practice receiving and answering questions with your peers, your Principal Investigator, or a colleague. The best way to practice with a colleague is to go to a quiet conference room. Give the talk standing up, using your slides (even if not quite finished), a projector, and laser pointer; in short, pretend to be in front of your audience. Be prepared to accept criticism from your colleagues.

To deal with questions after a talk in the best possible way

**Do**

- Be courteous in your answers at all times
- Tell the audience that if there are questions, you will be happy to answer them at the conclusion of your talk
- Direct the answer to the entire audience
- Admit when you do not know the answer

**Don’t**

- Do not give your audience an opportunity to interrupt your presentation
- Do not maintain eye contact with the questioner when you give your answer
- Do not make up an answer if you do not know

If no questions are forthcoming during the question period
At many conference meetings, the chairperson is instructed to think up a question in case no one else from the audience asks one. Alternatively, before you begin your speech, plant the first question with the chairperson or with a friend in the audience. Once the ice is broken, other questions should flow spontaneously. Sometimes, you can start the session by asking a question yourself: “Many of you may have been wondering how . . . ,” and then go on to give the answer. Alternatively, you may ask the audience a question. Note, however, that the latter two options should be employed rarely, as in many fields they may be considered inappropriate.

If there is no chairperson
You must exercise firm control so that not too many people compete for questions at the same time. You must also be prepared to deal with a member of the audience who wishes to make a speech of his or her own. If time is running out for the question period, announce that you will be able to accept only one more question.
If questions are not relevant
Sidestep these questions gracefully. Be especially gracious when you duck a question.

If a single individual in an audience digs in and will not give up trying to turn the question period into an argument
Handle this person politely but resolutely. Isolate the opposition. Smile at the person. Say “It looks as if we do not agree on this point. Rather than take the time of the whole group, why don’t we meet in the bar this evening and discuss it further.” The odds are 10 to 1 that person will never show.

If a questioner is never satisfied with an answer but counters with a further question
Never look at such a questioner when you complete your answer. Look somewhere else and pick a new question as quickly as possible from a different sector of the audience.

Difficult questions
When a question is a tough one, always repeat it, ostensibly, to make sure all of the audience has heard it. This gives you a few seconds to think about the answer. You have one of several options:

- Ask if someone in the audience will help you answer
- Ask the questioner to rephrase the question
- Ask the questioner to come talk to you after the session
- Say: “I do not understand your question, please explain.”
  “That is a good question, I will think about it.”
  “I wish I could answer that.”

28.12 OTHER SPEECH FORMS

**SPEECH GUIDELINE 1:**
Know how to make a proper introduction.

**SPEECH GUIDELINE 2:**
Know how to give an impromptu talk.

If you want to become a well-rounded speaker, you will not only have to learn to master the art of preparing and delivering presentations, but you will also have to learn to handle other speaking assignments confidently. You must learn to

- make a proper introduction, and
- talk intelligently when called on unexpectedly
Making an Introduction
As an introducer, you should assume a secondary supportive role. The
person being introduced is the star of the show.

The speaker who is being introduced has a name. Use it. Ask your
speaker the exact form of his or her name you should use. Write it down,
and get the pronunciation right. Ask the speaker what he or she would like
you to say in your introduction. Do as the speaker wishes.

When the introduction has been completed, you say, for example,
"Mary Peters will talk about ... (Ladies and gentlemen), Mary Peters." When
you have introduced the speaker, step away from the lectern and sit
down.

At the end of the presentation, move back to the lectern and stand at
the side of the speaker. You say, for example, "Thank you Mary Peters,"
and introduce the question and answer session if it is to take place imme-
diately following the presentation.

Impromptu Talk
As a scientist you should be able to reply to a question and make spontane-
ous commentary when called upon unexpectedly. Such impromptu talks
require background and a pool of knowledge to draw upon.

If you are called to the dais unexpectedly, keep your cool even though
somebody called on you without warning. If you remain calm despite
adverse feelings, you will win the audience on your side.

Walk SLOWLY. This gives you a few seconds to think. What should
you be thinking about? Your opening sentence—and nothing else.

When you reach the lectern, politely acknowledge the chairman,
and look calmly at the audience. Say, for example, "I am delighted to have
this opportunity to tell you about..." Talk for a few minutes after deliv-
ering your opening sentence until you have had time to work out your
closing sentence. Try to work out a good closing sentence: For example,
you could shortly summarize again what you have talked about. Then
smile for the last time to the audience, nod to the chairman, and leave
the dais.

Remember
A good impromptu talk should never be more than 3 to 5 minutes long.
Be conscious of elapsed time. Usually, 5 minutes is the outside limit for
impromptu remarks.

A strong opening is essential. A strong close is even more impor-
tant. What comes between should be short and concise. When you have
delivered your close, stop and keep silent from then on. Remain polite at
all times.

Things to Avoid
Omit afterthoughts. Stop when you come to your first close. Do not
open your mouth again no matter what beautiful thoughts float into
your mind.
28.13 CHECKLIST FOR AN ORAL PRESENTATION

Use the following checklist to ensure that you have addressed all suggestions in preparing for your talk:

☐ 1. Did you practice your talk—a lot?
☐ 2. Are your slides informative?
☐ 3. Is your talk within the time limit?
☐ 4. Are you aware of any appalling sounds or habits you show when presenting?
☐ 5. Did you find out who your audience will be?
☐ 6. Are your slides logically organized?
☐ 7. Do you have an overview slide?
☐ 8. Do you have a summary slide?
☐ 9. Did you prepare notes?
☐ 10. Did you write down
   ☐ i. Your opening statement?
   ☐ ii. Important transitions?
   ☐ iii. Concluding remarks?
☐ 11. When preparing your slides, did you concentrate on the main points in each portion of your talk?
☐ 12. Do all figures and tables have a title and a legend?
☐ 13. Are visuals and text aligned well in each slide?
☐ 14. Is each slide logically organized and uncluttered?
☐ 15. Did you use visuals where possible rather than text?
☐ 16. Is text used sparingly but informatively?
☐ 17. Is the font large enough?
☐ 18. Are slides/figures/tables kept simple?
☐ 19. Are exhibits attractive? Is color used well?
☐ 20. Did you proofread your text?
☐ 21. Have you familiarized yourself with the setup?
☐ 22. Did you ensure that there will be no ugly compatibility problems in between computers or versions of computer programs?
☐ 23. Did you pack a (laser) pointer?

SUMMARY

ORAL PRESENTATION GUIDELINES:
1. Prepare your talk well ahead of time.
2. Practice, practice, practice.
3. Get to know your audience.
4. As an overview for your presentation
   Tell the audience what you are going to tell them
   Tell them
   Tell them what you have told them
5. Organize your slides and include
   Optional: Title slide
   First slide: Overview of talk
   Second slide: Introduction and background
   Subsequent slides: Present what you studied and how you studied it. Present your results.
Final slide: Present your conclusions and the main points that support it.
Optional final slide: Use a credit slide in which you acknowledge those who have worked with you or financed your research.

6. Know how to use visual aids.
7. Prepare visual aids well ahead of your talk.
8. Make exhibits look attractive.
10. Think graphically.
11. Stick to the time limit.
12. Prepare notes.
13. Make sure you can be heard by the entire audience.
15. Avoid appalling sounds.
16. Use smoothers and transitions.
17. Be conscious of body movement.
18. Keep eye contact.
19. Face the audience.
20. Stay within the presenter’s triangle.
21. Use gestures.
22. Make sure that you are in charge.
23. Stay calm and polite.

SPEECH GUIDELINES:
1. Know how to make a proper introduction.
2. Know how to give an impromptu talk.

PROBLEMS

Problem 28-1
The following slide is text heavy. Reduce the amount of text to maximum five words per bullet point.

<table>
<thead>
<tr>
<th>2007 Focus Group</th>
</tr>
</thead>
</table>

Patients emphasized the value of:
- The welcome environment of the clinic
- Being able to communicate clearly in their native language
- The comprehensiveness of care offered during a visit
- Being seen by professional and caring clinical teams
- Feeling respected as human beings
Problem 28-2
Evaluate the following slide. How could it be improved?

![Slide showing Four Aspects Affecting Readers: Content, Style, Composition, Format.]

Problem 28-3
The following slide is text heavy. Reduce the amount of text per bullet point. Suggest what the presenter could do to highlight on the slide what part of the talk he or she is currently presenting.

Outline:
Part 1: We will discuss the kinematics of ocean currents
Part 2: Here we address the zonal momentum equation important for our study
Part 3: The Nonlinear Sverdrup theory is presented
Part 4: We show the seasonal cycle and interannual variability in the Pacific Ocean

(With permission from Jaclyn Brown, modified)
Problem 28-4
Assess the following slide. Explain why this is not a good slide.

(With permission from Elsevier)

Problem 28-5
Assess the following slide. Explain why this is not a good slide.

Fig. 4. Species specificity of sperm adhesion in S. franciscanus and S. purpuratus gametes. The number of adherent sperm was scored as a function of sperm concentration for all possible combinations of S. franciscanus and S. purpuratus gametes. 1, S. purpuratus sperm X S. purpuratus eggs; 2, S. purpuratus sperm X S. franciscanus eggs; 3, S. franciscanus sperm X S. purpuratus eggs; 4, S. franciscanus sperm X S. franciscanus eggs. Significant numbers of S. franciscanus sperm adhere to the surface of S. purpuratus eggs. The number of adherent sperm is normalized to account for the larger surface area of S. franciscanus eggs.

(With permission from Elsevier)
Problem 28-6

Explain why the following statements are not good choices for an oral presentation:

1. “Thank you for listening to my talk. I hope it was not too confusing or boring.”
2. “On this slide, please focus only on part D, and ignore parts A, B, and C.”
3. “First, I will provide an overview, then tell you about the methods, show some specific results, and last, I will summarize my talk.”
4. “Western blot analysis. Our Western blot analysis showed that … Sequencing. When we sequenced the insert …”
5. “This finding is in agreement with that of a previously published result reported by Lopez et al. in 2001 where it was shown that emergence of seedlings is temperature and humidity dependent.”
6. “It was determined that frogs can hibernate under water for up to six months.”