INTRODUCTION

- If presentations are not of the highest caliber in both content and delivery, communication is flawed and science is neither properly served nor facilitated.
- Development of good public speaking skills will also make positive contributions to many other aspects of an individual's career, given the importance of oral communication in other scientific situations, such as committees and boards.

ORAL PRESENTATIONS

- A scientific talk is an opportunity to both show and tell. If done properly, it provides your audience with knowledge presented in a way that best enables them to absorb and retain it.
- Thinking about *why* you give an oral presentation helps in defining *how* to give a good talk.

ORAL PRESENTATIONS

- Oral presentations are interactive experiences between the audience and the speaker.
- The speaker,
  - presents herself or himself
  - brings the subject to life for the audience through personal involvement and familiarity
- The audience,
  - has an opportunity to "meet" the speaker
  - may have excitement in personally hearing a recognized authority in a given field

PREPARATION

- If your talk is not well prepared and you do not deliver it in a manner that gains and holds the attention of your audience, much of the knowledge you hope to share will be lost.
- an area of extreme vulnerability in scientific talks
- Familiarity with your subject and confidence in your research is enough to give a good oral presentation.

PREPARATION: ASSESSING THE AUDIENCE

- Know that tailoring your presentation to your audience's needs and level of understanding is extremely important.
- You can speak to either all experts or all non-experts.
- But you must adjust the scope and level of your material.
- How large will the group be?
- Are they experts in your field?
- What are the expected ranges of age and educational level?

PREPARATION: FITTING INTO THE PROGRAM

- Verify the date, time, and place of the talk and how long you will have to speak.
- The likely size and layout of the presentation room is important information to have available before preparing visual aids.
- Is the program focused on one discipline or is it designed to give a cross-disciplinary or multidisciplinary view of the topics?
- Will there be other talks on similar or related subjects?
- Is a written summary of your talk or abstract required?

PREPARATION: CONTENT

- Define the purpose, topic, and appropriate depth and scope of the information you will be presenting.
- **The primary purpose** of the scientific talk is to inform or instruct. You may also subtly try to persuade and even entertain your audience, but don't lose sight of the primary purpose.
- **Your topic** is defined by your invitation to speak or within the context of the meeting session to which it is contributed. As well, your topic may be influenced by the context of the rest of the program/session.

PREPARATION: CONTENT

- **The depth and scope** of the scientific content are determined in large part by the audience profile and, most importantly, by the time allotted you.
- **For talks of all lengths:**
- Why would other scientists be interested?
- How might other disciplines or other research areas within my own discipline use this information?
- **For longer talks and/or more diverse audiences:**
- How can I generate excitement for my subject in someone without knowledge and involvement?
- Is there a research or teaching anecdote I could include for emphasis, added interest, or humor?

PREPARATION: CONTENT

- To achieve clarity, the talk must be well organized and logically structured.
- It should have an introduction, a body, and a conclusion.
- The language must be concise.
- Audiences are annoyed, irritated, and frustrated by talks they cannot understand.
- You may have something important to say, but audiences will seldom struggle to find it.

PREPARATION: CONTENT

- Give only absolutely necessary details regarding methods
- Narrow the focus rather than try to cover a large complex topic with generalities in a short period.
- Mathematical equations and symbols do not inevitably strengthen the science of a scientific talk: they do inevitably slow the pace of the talk, make it harder to understand. Consider preparing handouts for later study.

PREPARATION: DRAFTING THE TALK

- A few notes or an outline and some visual aids should suffice for those who know what they are talking about.
- Your visual aids can also serve as notes, but be careful not to fall into the trap of merely reading your visual material to the audience.
- A good talk has an introduction, a body, and a conclusion. Make every word count.
- Remember you are writing for the ear, not the eye. People do not speak the way they write.
- Use simple, direct, active words.

PREPARATION: DRAFTING THE TALK

- Strive to keep the non-technical language as straightforward and uncomplicated as possible.
- Simplify your phrases.
- Tighten your sentences.
- Never use a long word when a short one will do.
- If it is possible to delete a word without losing meaning, delete it.
- Use equations, math, and symbols sparingly and carefully.
- Almost by definition, scientific talks contain many facts and data, so it is a good idea to summarize.

WORSE TO THOSE WHO RUN OVERTIME

- It is rude and egotistical to exceed your allotted time.
- Granted, it is difficult to edit a year's research in to 9 minutes: but remember that other speakers face the same dilemma and most somehow manage it.
- Prepare overly long talks and rehearse enough to get the timing right.
- Never try to squeeze your 30-minute talk into a 20-minute speaking slot.
- Speaking as fast as you can and flashing through your visual material at the speed of light is not the way to condense your talk into the specified time.

WORSE TO THOSE WHO RUN OVERTIME

- Good editing skills and objective scrutiny of your visual aids are essential to preparing a good short talk.
- Authorities recommend preparing a talk that is slightly shorter than your allotted time.
- It is better to conclude with a little time left over than to rush at the end.
- Whether you run out of time or not, *never, never* close your talk by saying, “I think I’ll stop here.” This phrase sends a loud and clear message that you have not adequately prepared.

PRACTICE, PRACTICE, PRACTICE

- Rehearsals are almost as important to a good oral presentation as the actual content of the talk.
- Rehearsals, with visual aids, are also utterly essential to timing your talk properly.
- Tape-record your talk. Listen to the entire presentation without your notes.
- Do your thoughts flow logically?
- Are the transitions smooth?
- Do you vary your voice and your pace for emphasis, to avoid monotony, and as you transition to new thoughts?
- Do you hear any “ers,” “ahs,” or “ums”?

PRACTICE, PRACTICE, PRACTICE

- Videotape your talk. It is a guaranteed method for polishing your presentation. Watch for these things:
- Do you make eye contact?
- What are your hands doing?
- Do you smile occasionally?
- How is your posture?
- Do you notice any distracting mannerisms?

PRACTICE, PRACTICE, PRACTICE

- Practice with your visual aids.
- Do not talk to the screen!
- Check information in the text and in your visual aids that may need updating.
- Transforming a talk into a good or outstanding talk takes time.
- A lack of practice will be clear to your audience and will be interpreted as a lack of commitment, professionalism, and/or competence.

DRESS

- Like it or not, however, we are all judged in part on our appearance.
- Extremes, either too casual or too overdone, are not good ideas if you have a speaking role at a gathering.
- Play it safe, use your common sense, and, remember, neatness always counts.

DELIVERY

Studies of interpersonal communication show that:

- 55% comes from facial expressions and body language
- 38% comes from vocal quality or tone of voice
- 7% comes from content, the actual meaning of the words.

- Nonverbal signals speak volumes and are important in getting your message across.
- Develop a delivery style that incorporates good body language, pleasant facial expressions, and a confident, yet relaxed, tone of voice.

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DELIVERY

- Use a well-modulated speaking voice and a conversational tone.
- Make eye contact with members of the audience.
- Smile ☺☺☺
- Vary the pace of your words.
- Watch your posture.

Q & A POINTERS

- ...remember, while you are at the podium you are in charge. You can and must control the exchanges.

- 1. To encourage your audience to ask questions, call for them in a way that suggests you expect and want them.
- 2. Always repeat or restate a question from the floor.
- 3. Respond simply and directly.
- 4. Don't lose your control.
- 5. If someone asks about something explicitly covered in your talk, answer anyway.
- 6. If someone repeats a question that's already been asked, the general guidance is don't answer it again.

Q & A POINTERS

- 7. If someone tries to turn a question into a long-winded speech, politely, but firmly, stop him or her.
- 8. If someone asks a totally irrelevant question, respond by saying that really is not part of your topic.
- 9. The speaker can give permission for short interruptions, “for the purpose of clarifying a point or figure,” especially with a smaller audience.
- 10. If you run out of time, apologize for being unable to take every question. Offer to make yourself available after your presentation.
- 11. Give a short statement to close your Q & A session, then thank your audience for their questions and interest.

CONCLUSION

- Capturing, focusing, and maintaining an audience's attention are the keys to giving a good talk in any situation.
- Common sense plays an important role in preparing and giving a good scientific talk.
- You recognize what makes a talk good when you are in an audience, just as you recognize what makes a bad one.
- Take the time to develop the skills necessary to emulate the good ones and avoid duplicating the mistakes of the bad ones.

Any questions?? ☺