Seminar - Student Guide

1. GIVING A SEMINAR

Seminars are a richer medium than written documents. They allow you to establish stronger contact with the audience and better convince them of your viewpoint through verbal and nonverbal delivery, as well as the ensuing interaction. Seminars have a price, however, in terms of the audience's time. If you give a poor 15-minute presentation to an audience of 200 people, you have wasted the equivalent of 50 hours of work — more than a week of someone's work time. Preparing effective seminars, like writing effective scientific papers, takes time, but it is time well invested. This assessment item will give you a chance to start building your oral presentation skills.

2. STRUCTURING YOUR SEMINAR

Like scientific papers, oral presentations are for sharing your research/project work with others and must convince the audience that the work presented is important, valid, and relevant to them. To this end, oral presentations — like papers — must emphasise both the motivation for the work and the outcome of it, and they must present just enough evidence to establish the validity of this outcome. Also like papers, they must aim to inform, not impress.

In contrast, presentations differ from papers in at least three ways and affect the selection of a presentation's content:

- they are more localized in space and time;
- they impose a sequence and rhythm to the audience;
- they normally include some level of interaction.

Generally presentations have a more clearly defined audience than papers: They address "the people in the room," here and now. The audience might still be diverse, but less so than for papers. Papers can be forwarded in unpredictable ways and may be read many years from now, so they should be lasting and largely self-contained. In contrast, presentations can have more specific purposes. For example, a presentation at a conference normally aims to present recent advances, whereas a presentation at a Ph.D. symposium aims to inform other Ph.D. students (sometimes in other fields) of one student's line of research.

Whereas papers can be read in any order and at the reader's own pace, presentations impose both the sequence and the rhythm of content on their audience. They are therefore harder to follow and should be much more selective in what they contain. The idea is not to say out loud everything that is already written in the proceedings paper or dissertation. Written documents are for convincing with detailed evidence; oral presentations, on the other hand, are for convincing with delivery — both verbal and nonverbal.

Finally, presentations normally include interaction in the form of questions and answers. This is a great opportunity to provide whatever additional information the audience desires. For fear of omitting something important, most speakers try to say too much in their presentations. A better approach is to be selective in the presentation itself and to allow enough time for questions and answers and, of course, to prepare well by anticipating the questions the audience might have.

As a consequence, and even more strongly than papers, presentations can usefully break the chronology typically used for reporting research. Instead of presenting everything that was done in the order in which it was done, a presentation should focus on getting a main message across in theorem-proof fashion — that is, by stating this message early and then presenting evidence to support it. Identifying this main message early in the preparation process is the key to being selective in your presentation. For example, when reporting on materials and methods, include only those details you think will help convince the audience of your main message — usually little, and sometimes nothing at all.

2.1 Opening

In its intent and structure, the opening of an oral presentation is similar to the Introduction of a scientific paper, which provides the context, need, task, and object of the document, with three main differences:

- The context as such is best replaced by an attention getter, which is a way to both get everyone's attention fast and link the topic with what the audience already knows.
- The object of the document is here best called the preview because it outlines the body of the presentation. Still, the aim of this element is unchanged — namely, preparing the audience for the structure of the body.
- The opening of a presentation can best state the presentation's main message, just before the preview. The main message is the one sentence you want your audience to remember, if they remember only one. It is your main conclusion, perhaps stated in slightly less technical detail than at the end of your presentation.

2.2 Body

To make your structure easy to remember, for both you as a speaker and your audience, think of it as a tree (or hierarchy) rather than a chain. Identify two to five statements you can make to support your main message: These are your main points. Next, think of two or three statements to support each main point: These are your sub-points. Together, these main points and sub-points represent about as much detail as your audience can absorb in a single oral presentation.

Even if you think of your presentation's body as a tree, you will still deliver the body as a sequence in time — unavoidably, one of your main points will come first, one will come second, and so on. Organize your main points and sub-points into a logical sequence, and reveal this sequence and its logic to your audience with transitions between points and between sub-points. As a rule, place your strongest arguments first and last, and place any weaker arguments between these stronger ones.

2.3 Closing

After supporting your main message with evidence in the body, wrap up your oral presentation in three steps: a review, a conclusion, and a close. Firstly, review the main points in your body to help the audience remember them and to prepare the audience for your conclusion. Next, conclude by restating your main message (in more detail now that the audience has heard the body) and complementing it with any other interpretations of your findings.

Before closing, you should ensure you acknowledge those that have helped or provided resources/guidance and to be clear on what you did versus others. This can be achieved through the presentation itself by putting this on the actual slide(s) or verbally. It is also good practice and polite to put an acknowledgement slide at the end listing contributors, those that helped and any funding body that should be credited.

Finally, close the presentation by indicating elegantly and unambiguously to your audience that these are your last words.

3. CREATING SEMINAR SLIDES

Creating good slides is as important as planning the presentation, structuring it, and delivering it well: *Design them so they get a message across to your audience in a visual way*.

Slides are for the audience. They should not be designed as a memory aid for the speaker. If you feel you need a tool to help you decide or remember what to say, create notes for yourself, but do not project these in front of the audience. Slides that are created for the speaker tend to be overcrowded and cryptic.

- Slides are for getting messages across. On each slide, state your message as a short sentence (on a maximum of two lines, corresponding to about 10–15 words), normally in the title area. Use a full sentence with a subject and a verb — for example, instead of writing "Evolution of the temperature as a function of the time" (the what), make a point such as "The temperature increased much faster than anticipated" (the so what). Then develop this message in the rest of the slide.
- Slides are visual aids. The audience cannot listen to what you say and read text at the same time, except for a few words or a short statement. Because of this limitation, be as visual as possible as you develop the message you stated in the title area. Still, ensure that whatever material you include — whether verbal or visual — stands on its own. If you remove key labels or shorten texts to a few cryptic words, your audience will not know what you mean.
- Slides need to be proof-read. As in other documents, language mistakes in slides can distract the audience from your content. Revise your slides as carefully as you revise your papers.

4. DELIVERY

Delivering effective oral presentations involves three components: what you say (verbal), how you say it with your voice (vocal), and everything the audience can see about you (visual). For all three components, maximize the signal-to-noise ratio: Amplify what helps, filter out what hurts.

Verbally (and as a general rule), do not write down and memorize or read your full text, because then your presentation will sound like what it is: a recited written text. Instead, memorize the outline of your presentation — that is, a tree structure of main points and sub-points — and improvise your speech, reinventing the words as you go along. As you do, you will occasionally need to think about what to say next and find the most appropriate words to say it. Instead of using filler words (um, er, you know, I mean, etc.), simply pause. If you say um, you get about half a second of thinking time and the audience is likely to notice the um and be irritated by it. If you keep silent, you can get up to two or three seconds of

thinking time without the audience noticing anything. Even if attendees do notice the silence, they will simply think that you are choosing your words carefully — and there is nothing wrong with that.

Vocally, vary the tone, rate, and volume of your voice as a function of the meaning, complexity, and importance of what you are saying. You need not invent a new intonation pattern: You simply need to amplify your normal pattern.

Visually, control your body. Adopt a stable, confident position; move only when you have a positive reason to do so (for example, move closer to the audience for taking questions), not when your body seems to ask for it. When you make a gesture, make it large and deliberate; between gestures, bring your hands down and do not fidget. Establish eye contact: Engage the audience by looking them straight in the eyes.

At all times, make sure you address the audience. Even if you have slides, tell the audience your story in a stand-alone way; do not just explain your slides. In particular, anticipate your slides. You should know at all times what your next slide is about so you can insert an appropriate transition.

4.1 Delivery as a non-native speaker

If you are a non-native speaker of English, you may find it more challenging to improvise your speech in English than in your native language. Still, even imperfect improvised English is more likely to engage the audience than reciting a more polished, less spontaneous written text. To improve your delivery and overall presentation as a non-native speaker, practice more, pace yourself, and support your spoken discourse with appropriate slides.

While all speakers benefit from practicing their presentations multiple times, consider investing more time in such practice if you are less familiar with the language. Practicing helps you identify missing vocabulary, including key technical terms (which are difficult to circumvent), and express your ideas more fluently. As you practice, you may want to prepare a list of difficult words (to review on the day of your presentation) or write down an occasional complex yet crucial sentence. Still, do not feel bound to what you write down. These notes should be a help, not a constraint.

Practicing in front of an audience (a few colleagues, for example) can help you correct or refine your pronunciation. If you are unsure how to pronounce some words or phrases, you can ask native speakers in advance or check online dictionaries that offer phonetic spelling or audio rendering. Still, you may be unaware of certain words you mispronounce; a practice audience can point these words out to you if you invite it to do so.

During your presentation, pace yourself. As a non-native speaker, you may feel you need to search for your words more often or for a longer time than in your native language, but the mechanism is the same. Do not let this challenge pressure you. Give yourself the time you need to express your ideas clearly. Silence is not your enemy; it is your friend.

Pacing yourself also means speaking more slowly than you otherwise might, especially if you have an accent in English. Accents are common among non-native speakers — and among specific groups of native speakers, too — and they are not a problem as long as they are mild. Often, they are experienced as charming. Still, they take some getting used to. Remember to slow down, especially at the beginning of a presentation, so your audience can get used to your accent, whether native or not.

As a non-native speaker or when speaking in front of a non-native audience, consider supporting your presentation with slides. Effective slides (see Creating Presentation Slides) get the message across on their own, so if attendees do not understand what you are saying, they can still get your point from your slides. If your spoken English is imperfect or if their understanding of English is limited, attendees are more likely to get the point from the slides (verbal statements, illustrated visually) than from your spoken text. If you have a strong accent or are prone to mispronounce key terms, you may want to include these terms on your slides, integrating them as naturally as possible with the rest of the slide content. Then, as you say a term for the first time, you might point to it casually on the slide so the audience makes the connection between the term and how you say it.

4.2 Answering questions

The questions that arise after a presentation may frighten you even more than the presentation itself, yet they are a great opportunity to reinforce your main message, correct any misunderstandings, and provide supplementary content. You can increase your effectiveness by preparing for questions and by giving yourself the time to answer optimally.

To prepare for questions, anticipate them. Think of what your audience might want to know — for example, details you initially planned to include but left out to keep your presentation under the time limit. Practice your presentation in front

of colleagues and let them ask you questions. If you think slides would help you answer some of the anticipated questions, consider creating them.

When receiving a question, do not rush into answering it. First, listen to the entire question to make sure you understand it; do not interrupt the questioner. Then, make sure the other attendees understand the question: If they might not have heard it, repeat it; if they heard it but might not understand it, rephrase it. Finally, and even if you know the answer, think: Take time to construct a concise, to-the-point answer. You will not appear more knowledgeable by answering questions quickly; you reveal your expertise by answering them usefully.

In most situations (Ph.D. defences being a possible exception), the questions that follow a presentation are not an exam. In other words, attendees do not ask questions to test you; rather, they ask questions because they would like to know the answers. Accordingly, do what you can to help your audience — in one way or another. If you do not know the answer, say so, then try to find it. You might offer to look it up ("I do not have the numbers with me, but if you leave me your email address, I can look them up and send you the answer later."). You might refer the questioner to someone who might have an answer ("Oh that is a strongly biological question. I am a chemist myself, so my work focuses on the chemical processes involved. Is there a biologist in the room who can answer this question?"). You might even guess, as long as you make it clear that your answer is a guess ("I have never calculated it in the case you mention, but if I had to give you an answer right now, I would guess . . . around 5 mV.").

5. SUMMARY

Oral presentations, like any other form of professional communication, are about getting messages across. To make sure you focus on the so what, create your oral presentation in top-down fashion. First, identify your need (why something needed to be done), your task (what you did to address the need), and your main message (the one sentence you want your audience to remember, if they remember only one). Then construct your body as a hierarchy of main points and subpoints that support your main message. Be selective: Do not try to say everything you would write (or have written) in a paper. Develop your main message more fully in your conclusion. Encapsulate your presentation with an attention getter and a close. Finally, reveal the structure of the body to your audience with a preview at the end of the opening (after the main message), transitions between points and between sub-points, and a review at the beginning of the closing (before the conclusion).

With each slide, get a message across. **State that message verbally** in the title area as a short sentence (10–15 words on a maximum of two lines). Illustrate the message visually in the rest of the slide. Be concise, both verbally and visually: Question the relevance of anything you plan to include on your slide, especially decoration (backgrounds, colours, lines, etc.). Do not include superflous items on the slide that you have no intention of talking about.

When practicing and eventually delivering your presentation to your audience, strive for a high signal-to-noise ratio. Increase the signal: Modulate your voice for meaning, complexity, and importance; make large, deliberate gestures; and look at your audience. In parallel, reduce the noise: Avoid filler words (um, er, you know, etc.), and do not pace or fidget. Address the audience — do not merely explain your slides.

When taking questions, do not rush: Take time to understand and to make sure the audience understands each question, and think before you answer. When fielding difficult questions — in particular, questions you do not know the answer to — focus on your purpose. Strive to help people, not to impress them falsely.

Finally, accept unavoidable stage fright as a reassuring symptom and a useful source of energy.

- *Based on material from Nature education 2014*

6. SUBMITTING YOUR SEMINAR

At the end of the semester, you should submit your presentation electronically as a PPTX file through the relevant course Turnitin submission point in Blackboard by the due date given in the electronic course profile (ECP).

Extensions beyond this deadline will only be granted for medical reasons and under exceptional circumstances in compliance with The University of Queensland policy
https://my.uq.edu.au/information-and-services/manage-my-program/exams-and-assessment/applying-extension

7. ASSESSMENT OF YOUR SEMINAR

The presentation will be assessed by your supervisor, however, we encourage your research group attend. You should liaise with your supervisor and research group to find a mutually suitable time to schedule your presentation.