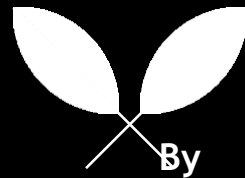


# **Scientific Research and Thesis Writing Methodology**



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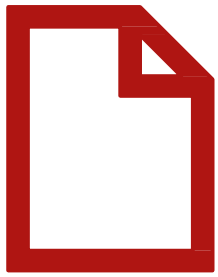
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# Contents



**How to prepare for a  
Seminars**



**The Purposes of  
Seminars**



**Ways to give an  
effective seminar**



# What are Seminars?

Seminars are an important part of many academic programs and provide an opportunity for a group of students to discuss and analyze a range of new **material**, **ideas** and **concepts** together with their professor or tutor.



# Seminar's structure

- ▶ Opening
- ▶ Explaining
- ▶ Discussion
- ▶ Questions/questioning
- ▶ Variability
- ▶ Summarizing/concluding



# Seminar's Planning

- ▶ Goals/Objectives
- ▶ Ground rules
- ▶ Evaluation



# The purposes of seminars

- ▶ Providing an opportunity to explore a topic in depth
- ▶ Surveying and critically evaluating different viewpoints
- ▶ Developing a wide range of communication and study skills
- ▶ Building confidence
- ▶ Easing communication between students and tutors.



# How to lead a good seminar?

- ▶ **Being well-prepared:** is central to giving an effective presentation or leading a seminar discussion. Although you may feel nervous, there are ways of positively using the energy that adrenalin can provide.
- ▶ Your module tutor may provide specific guidance about what is expected from your seminar presentation, and may give you tips on how to prepare, or even on the format you need to use to present on the topic. Please follow such guidance carefully.



# How to lead a good seminar?

- ▶ Pay particular attention to the timing allocated. For example, students may be asked to give a 10 minute presentation and then lead a discussion for a further 10 minutes. Time-keeping is a transferable skills and therefore may be part of what you are learning.
- ▶ Preparation, practice and discussion in advance about how you will present the session can help avoid over-running the time allocated to you.





# 10 Minute Sem

# inar Presentation G

2-3 minutes

## Introduction

- Introduce yourself
- Give the purpose of the talk - or define the problem or the question to be considered
- Explain the order that you will talk about things, ie the **structure of your talk**.

5-6 minutes

## Main body of the talk

- Give the references of the sources you have consulted
- Explain the main points from your research
- Highlight any points of contradiction or differing views
- Identify possible points for discussion



# Ways to give an effective seminar about your research

There are two key aspects to focus on improving: **YOU** and **YOUR SLIDES**. Your slides should function as a roadmap, helping you and your audience to follow the main ideas. Here's how to build a great roadmap.

**1. Focus on one idea at a time.** The biggest mistake that most speakers make is putting too much data on a slide. No one wants to hear, 'This slide is busy, but let me walk you through it'. Use animations to build ideas: introduce a single point on a slide, then gradually bring in the rest of the elements one at a time or on separate slides.



# Ways to give an effective seminar about your research

2. **Do not write paragraphs**. A presentation is not the right forum for the written word. Don't introduce a paragraph in a slide and read it out loud: people can read faster in their heads than you can on stage.

Also, if you put up a paragraph, but talk about something else entirely, everyone will be too busy reading to pay attention to what you're saying. Use bullet points with a minimal amount of text.



# Ways to give an effective seminar about your research

**3. Reel the audience in.** Seminars usually last anywhere from 10 min. to half an hour. To keep the audience's attention for such a long period, make sure you provide an answer to the question, 'Why should we care about this'? Addressing this right at the beginning should help you to capture your audience's attention for the rest of the talk.



# Ways to give an effective seminar about your research

4. **Follow the ‘question, experiment, result’ format.** Research is messy, but your presentation doesn’t have to be.

For example, when I first began my thesis project, the proteins that I was studying had no obvious role. Because there were several possibilities about what their function could be, I had to address each one of those hypotheses individually.

My experimental data showed that most of my hypotheses were wrong. Eventually, I worked out the role of those proteins. When the time came to present what I’d done, I didn’t subject my audience to all the data because a large portion of it has no bearing on my story.



# Important Notice

**To achieve clarity**, always emphasize to the audience the question you were trying to answer early in your talk:

1. What was your hypothesis?
2. Then talk through the experiment that helped you to answer that hypothesis.
3. After that, show your audience the results.
4. Following this formula ensures that, by the time you get to the result, your audience will be invested in the outcome, have an idea of what to expect and be delighted when they see that your results matched their thinking.



What other steps can you take to make your seminar a success?

Remember, a presenter is not so different from a performer. As a presenter, you're constantly **trying to win over** your audience and convince them that your work is important and interesting. **Here are a few guidelines that will help you to become a more effective communicator:**



## What other steps can you take to make your seminar a success?

1. **Pace yourself**: **breathe**, let the audience soak it in. Rushing through a seminar is an easy mistake to make.
  - ▶ People tend to speak faster when they're nervous and, although this is natural, it damages a presentation.
  - ▶ An audience needs time to understand the results and their implications.
  - ▶ Racing through the slides will only disorient them, especially if the results are nuanced and complicated.
  - ▶ So, remember to breathe. After every important result, stop.
  - ▶ Give it a few seconds, and then continue. This will help your audience to follow the talk, and it will calm your nerves.





## What other steps can you take to make your seminar a success?

2. **Convey passion**. How the audience reacts to a particular piece of information depends on how you present it.
- ▶ If you are lukewarm about particular results, the audience will think that those results are not worthy of their attention.
  - ▶ By using phrases such as, ‘**These results were surprising**’, ‘**We found a really cool phenomenon**’ and ‘**The implications of these findings are exciting**’ — and by matching those expressions with your tone of voice — you are giving the audience cues on how to respond.
  - ▶ Remember that these phrases sound dull if they aren’t said with **enthusiasm**.



## What other steps can you take to make your seminar a success?

**3. Point the laser correctly.** There is one aspect in which people behave exactly like cats. If you point the laser haphazardly all across the slide, human eyes will follow the laser. Use the laser judiciously. Point to one thing at a time, and hold your arms steady so that the audience can focus on that one thing.

**4. Modulate your voice.** It can be easy to speak in a monotone when we're nervous and don't want to sound squeaky. Learn to use intonation.

**For example**, when you ask a question, use a high note at the end. When you make a declarative statement, finish on a low note. These things usually happen naturally, but they can get lost when you're nervous.



What other steps can you take to make your seminar a success?

## 5. Practise, practise, practise.

The key to a good performance is practice. Practise your pitch, your pacing, your body language, how you walk around, how you use your hands and where you point the laser. Although practising can be time consuming, it will boost your self-confidence.

**What I always do is:** be so familiar with your talk that you won't miss a beat even if the computer fails and none of your slides can be seen.

# Reference

▶ [https://www.kent.ac.uk/learning/documents/student\\_support/slasworkshops/seminarsai1213sc051212.pdf](https://www.kent.ac.uk/learning/documents/student_support/slasworkshops/seminarsai1213sc051212.pdf)

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**Thank you**