

Module 1

Presentation Scripts of Scientific Research

Tick the following checklists when the learning objectives and output task of Module 1 are completed.

Learning Objective Checklist

- ☐ Understanding what a scientific presentation is.
- ☐ Understanding the features of an effective scientific presentation.
- ☐ Understanding the differences and similarities between a scientific composition and a scientific presentation.
- ☐ Converting a piece of scientific writing into the script of a scientific presentation.
- ☐ Understanding the linguistic style of an effective scientific presentation.
- ☐ Mastering appropriate language usage when converting a scientific composition to a scientific presentation.
- ☐ Understanding the basic principles for a scientific presentation.
- ☐ Comprehending the classical macro-structure of a scientific presentation.
- ☐ Presenting a sample structure of a scientific presentation.
- ☐ Understanding the importance of effective content in a scientific presentation.
- ☐ Mastering ways to make speech content customized, clear, consistent, concise, and credible.
- ☐ Presenting a persuasive and informative scientific presentation using the 5Cs principle.

Learning Output Checklist

- ☐ An effective presentation script of scientific research.



1

Chapter

Introduction

Learning Objectives

- ◆ Understanding some basic concepts of a scientific presentation.
- ◆ Understanding the features of an effective scientific presentation.



Knowledge Base



1.1

Introduction to a Scientific Presentation

To understand what a scientific presentation is, we can first examine its similarities with a general presentation.

A scientific presentation and a general presentation share a similar communication method—the illustration of ideas and points through spoken words, and sometimes with visual aids. The nature of all presentations is the oral communication between a speaker on the podium or stage and the audience (offline or online). An effective scientific presentation requires similar qualities as an effective general presentation does—easy to understand, persuasive, and engaging.

However, a scientific presentation done in the same way as a general presentation would sound like an amateur making up scientific stuff. Such a presentation may be amusing and attractive, but it does not fulfill most of the requirements in a scientific setting. General presentations and scientific presentations have different purposes. Scientific presentations are targeted at people in academia, so the materials and language are more scientific than those of general presentations. Scientific presentations are mostly not to entertain, but to inform or persuade.



1.2

Importance of Making an Effective Scientific Presentation

Scientific presentations are not new and they have been part of scientific communication for centuries. Every one of us in our scientific career has participated or will participate in a scientific presentation as a viewer or a presenter. But as a matter of fact, most scientific presentations are far from being excellent or perfect, making them less effective than desired.

An effective scientific presentation is of great importance to you. To begin with, an effective scientific presentation benefits you personally. Because you will have to engage in scientific presentations and most of you will have to present your points at times, knowing how to get the information in your scientific research or others' works across can help others

better understand your ideas. No matter whether your scientific presentation is for important scenarios like the thesis defense or a small sharing in class, expressing scientific ideas clearly and effectively will help you gain higher marks or meaningful feedback from the audience, and successfully persuade others with the scientific findings that you have worked on.

Second, everyone in academia benefits from an effective scientific presentation. Many innovative ideas, extensive investigations, outstanding discoveries, etc. do not have the desired impact on academia because of poor presentation skills. It is especially important for those of you who will become specialists in your area of study, since you do not want your scientific ideas or findings to be overlooked simply because others do not appreciate the way you present them. As many people are from various backgrounds in academia, effective communication is crucial if ideas are to be exchanged and collaboration is to be established.

Making an effective scientific presentation is not difficult, however. The next chapters will help you convey your scientific ideas successfully.



1.3 Features of an Effective Scientific Presentation

An effective scientific presentation requires efforts in three main areas: the speech draft, the presentation aids, and the overall style.

The first feature of an effective scientific presentation is that it is delivered based on a persuasive speech draft. A scientific presentation is just like a podcast on a scientific issue, and the speech draft addresses all the words and sentences exchanged throughout the oral communication. A persuasive speech draft should have simple yet scientific language, an organized and effective structure, and content that is customized to the specific scientific purpose. Chapter 2 will clarify the distinctions between a scientific composition and a scientific presentation. Chapters 3–5 will tell you how to write a persuasive speech draft with appropriate language, structure, and content.

The application of presentation aids is the second feature of an effective scientific presentation. Extremely colorful presentations do not fit in scientific settings, and disorganized slides do not transmit useful information such as data, figures, and so on. Chapters 6–8 will guide you through the requirements of designing proper slides and using visual aids to enhance your presentation.

The third feature of a successful scientific presentation is its overall persuasive style, which includes dressing, manner, delivery, engagement with the audience, etc. An effective scientific presentation requires not only a persuasive speech draft and appropriate visual aids, but also a good speech pattern to convey all the information. Chapters 9–14 will provide you



with the essential instructions to become a good speaker through practice.

Some scientific presentations excel in one area while others thrive in another. They all, however, have a crucial trait, which is probably the most important aspect of making a scientific presentation—preparation. You may have your own style and method of drafting the speech or preparing for visual aids, but in order to be a successful scientific presenter, you should practice a lot. All effective scientific presentations are well prepared.



Chapter Recap

Different from general presentations, scientific presentations are targeted at people in academia, and therefore, their materials and language are more scientific.

It is important to make an effective scientific presentation because it can benefit you personally as well as everyone in academia.

An effective scientific presentation requires efforts in three main areas: the speech draft, the presentation aids, and the overall style.



Model Appreciation



Watch a TED talk entitled “TED’s Secret to Great Public Speaking” (2016). The presenter is Chris Anderson, a former TED chief instructor. The talk shares four ways of making successful presentations. Work in groups and discuss the following questions with your partners.

- (1) What makes an idea worth sharing and presenting?
- (2) What is the most important task of a presenter to implant his/her idea in the minds of the audience?
- (3) What are the four guidelines for a presenter to follow to convey his/her idea properly?



Task

Read the following situations from scientific settings. Tick the situations that you have previously experienced. Work in groups and comment on the options that you have experienced with your partners.

Situations	Experienced or Not	Satisfactory	Unsatisfactory	Comments
1. Giving a conference presentation				
2. Participating in a seminar				
3. Attending a round table discussion				
4. Consulting a tutor about a project plan				
5. Discussing a project design with team members				
6. Discussing a scientific writing draft with a professor				
7. Asking or answering seminar questions in a forum				
8. Introducing yourself in an academic interview				
9. Leading a conference discussion				
10. Hosting a scientific forum				



2

Chapter

Scientific Compositions and Scientific Presentations

Learning Objectives

- ◆ Understanding the similarities and differences between a scientific composition and a scientific presentation.
- ◆ Converting a piece of scientific writing into the script or outline of a scientific presentation.



Knowledge Base



2.1

Key Components of Communication

Scientific compositions and scientific presentations are both significant ways of scientific communication that necessitate the proper transmission and exchange of ideas. These two ways of communication appear to be completely contradictory. A scientific presentation done in the same manner as a scientific composition would be analogous to listening to a computer's automatically synthesized robotic voice. Although such kind of robotic reading of an essay conveys scientific knowledge, it is far from being effective communication.

To help you better understand the relation between the two ways of communication, i.e., scientific composition and scientific presentation, we list several key components of communication here:

- ★ Sender: the source of the message or the person who originates the message;
- ★ Receiver: the recipient of the message from the sender;
- ★ Channel: the medium used to send the message;
- ★ Message: the verbal and nonverbal components of language that are sent to the receiver by the sender which convey an idea;
- ★ Feedback: the receiver's verbal and nonverbal response to the message.

2.1.1 Sender

In scientific compositions, the senders are the authors of the scientific writings; whereas in scientific presentations, the senders are the selected authors or representatives of the presented scientific work. In the process of making a scientific presentation, one or more group members will go on the stage.

2.1.2 Receiver

In both scientific compositions and scientific presentations, the receivers are mostly researchers or people interested in related fields, e.g., reviewers and readers of a published article, or the audience of a research findings presentation.

However, the senders and receivers may exchange their roles. Sometimes the speaker