Module: About This Course

SECTION: PLATFORM INTRODUCTION

Unit : How to Use This Website

In this video, you will learn about a few key areas of the site you'll use while taking this course.

Video : https://youtu.be/wf9QrrRzJys

Thank you for signing up for Share Your Research: How to Give a Good Talk. The above video should have given you enough information to navigate the iBiology Courses website, as well as this particular course and its content.

Going forward, if you have any issues or questions, please email us at courses@ibiology.org. Or post it in the “Technical Issues” topic in the discussion forum. Questions and issues will usually be addressed within 24 hours.

SECTION: COURSE INFORMATION

Unit : Course Syllabus

Course Goals and Mission Statement
Giving a research talk (say, at a conference, to your department or in your research group meeting) is a really important part of a scientist’s career. But, putting together and delivering a talk can be a nerve-wracking struggle. Maybe you have little to no experience giving research talks. Or maybe you’ve been doing it for a while, but feel like there is room for improvement. Either way, this course is for you!

Share Your Research is a FREE self-paced course that will guide you through the steps of creating and delivering a good research talk.

By the end of this course, you will have:

- A detailed outline for your research talk.
- Techniques and strategies for delivering an engaging and effective talk.
- Approaches for finding and refining your preferred speaking style.
- Strategies for practicing and receiving feedback on your talk.

A course for anyone who needs to give research talks
We designed this course for anyone who will be giving research-based scientific talks in the future. This list includes (but is not limited) to advanced undergraduate and graduate students, postdocs, as well as early-career or well-established researchers who are interested in learning more about giving a good scientific talk. While most of our instructors have a background in the life sciences, the lessons included in the course are broadly applicable to other disciplines.

Includes 4 modules and a plan for your research talk

- Module 1, FRAMING YOUR TALK: This module introduces you to a framework to help you define the foundations of an effective talk: who is the audience, what are your goals, and what is your core message. This module also offers advice to help you discover your speaking style.

- Module 2, START BUILDING YOUR TALK: This module presents strategies to help you outline and structure your talk and engage your audience. This module will also get you started with defining the content of the body of your talk.

- Module 3, ROUNDING OUT YOUR TALK: In this module, you will continue working on the structure and content of your talk, focusing on the introduction and ending.
The module also discusses more strategies for audience engagement and talk titles.

- Module 4, GIVING YOUR TALK: This module provides tips and best practices to deliver an effective talk: from strategies for practicing and receiving feedback, to lessening the nerves and dealing with the Q&A.

- MY TALK PLAN: As you work through the course, you will be prompted to apply what you’re learning to your own presentation by completing a series of assessments. The responses to these exercises will be captured in a downloadable document called “My Talk Plan”, which is essentially an outline for your research talk. It is organized so that relevant sections may be easily applied to the creation and delivery of future talks.

**Built with your schedule in mind**

We know you have lots of things to do, so we designed this 5-week course to take 1.5 to 3 hours per week. There are an average of 7 videos per module; each video is 2 to 6 minutes in length.

**Requirements**

There are no prerequisites to take this course.

**Format**

The course is composed of videos, text, forum discussion questions, and open response assessments. The majority of the instructional materials are contained within the videos and text.

This course is an on-demand, self-paced course. This means that, as soon as you enroll, all course content is available to you and may be consumed at your own pace. For your reference, it took students 5 weeks to complete the whole course in a hosted, synchronized format. We estimate you will spend 1.5 to 3 hours on the course per week. This includes time spent watching videos, reading text, doing assessments, and engaging in the forum.

"My Talk Plan" (Assessments)

As you go through the modules, you will be prompted to apply what you’re learning to your own research presentation through a series of self-reflective exercises. The goal of these exercises is to probe your thinking as you design the outline of a talk about your
own research. Your responses from these exercises will be accessible through a printable document titled "My Talk Plan."

**Grading**

This is a pass/fail course, and your grade will be based solely on the completion of the open response assessments. You will receive an iBiology Courses Certificate if you complete at least 50% of the assessments. Assessment fields are defined as any text input box that appears under the “Assessment” heading within the course. Each required assessment is numbered (e.g., “Q1,” “Q2,”) to help you keep track as you take the course. Each assessment field has equal weight so there will be no difference in penalty for assessment fields you leave incomplete. That being said, we highly recommend that you endeavor to complete as many assessment fields as possible in order to get the most out of the course.

If you have further questions regarding our grading policy or completion of the course, please feel free to contact us at courses@ibiology.org.

**Course Schedule**

**Week 1**

Module 1, FRAMING YOUR TALK: This module introduces you to a framework to help you define the foundations of an effective talk: who is the audience, what are your goals and what is your core message. This module will also offer advice to help you discover your speaking style. We will discuss:

- What makes a good scientific talk
- What needs to be done before you start making your slides
- The importance of knowing your audience, goals, and message (aka the framework for a good talk)
- Tips and strategies for establishing your own personal speaking/presenting style

**Week 2**

Module 2, START BUILDING YOUR TALK: This module presents key concepts to help you outline and structure your talk and strategies to help you engage your audience. This module will also get you started with defining the content of the body of your talk. We will discuss:
The difference between scientific talks and papers

How to turn your research into a story that will keep your audience interested and engaged

How to translate your framework into effective slides

How to choose the data that you will include in the body of the talk and how to present that data in an understandable and engaging manner

Week 3
Module 3, ROUNCING OUT YOUR TALK: In this module, you will continue working on the structure and content of your talk, focusing on the introduction and ending. The module also discusses strategies for audience engagement and talk titles. We will discuss:

• How to determine what should be covered in the introduction of your talk
• How to “hook” the audience
• How to convey the importance of your research so that the audience understands the impact and implications of your research
• How to end your talk effectively, leaving your audience interested yet satisfied
• How to develop an engaging title for your talk that will attract an audience

Week 4
Module 4, GIVING YOUR TALK: This module provides tips and best practices to deliver an effective talk: from strategies for practicing and receiving feedback, to lessening the nerves and dealing with the Q&A. We will discuss:

• How to use clear and concise language to convey your message
• Strategies for practicing that will help you fully prepare for your talk
• Preparing for your talk environment as well as the image you would like to present during the talk
• Strategies to reduce public speaking nerves
How to effectively navigate the question and answer session at the end of your talk

Week 5
Review and make changes to “My Talk Plan,” the document which contains your responses to all the assessments from the course. Also, remember to get feedback from peers and colleagues.

Unit : Discussion Guidelines

In this video, you will learn about some of the features in the discussion forums.

Video : https://youtu.be/iodi5B_N4qk

Learning communities are one of the best ways to meet and network with like-minded scientists. One of our intentions when designing this course was to create an online learning community of current and future scientists dedicated to improving the quality of research in the life sciences. To that end, we invite you to participate in the various discussion forums available here in the course. Some guidelines, which may be particularly useful for those new to online courses, are:

- Introduce yourself. Let us know who you are and why you’re taking the course. We’ve set up an "Introduce Yourself" discussion topic in the forum exclusively for this purpose (we’ll ask you to participate a little later in the course).

- Take some time to respond to the various discussion prompts we have embedded in each week’s material. We each bring a unique set of experiences and perspectives to the course topics, so this is a great opportunity to learn from your peers and colleagues.

- We recommend that each time you post, take a look at other posts in that thread and respond to at least two of your peers. There’s great value in peer-to-peer learning, and that can be facilitated through online discussions. Be respectful, certainly, but feel free to respectfully disagree or add levels of complexity to the arguments you see in your peers’ posts.
• Be aware that participants in this course come from a variety of backgrounds and experiences. That's what makes the learning community a rich opportunity, so be kind to peers who might not see the course topics the same way you do, or who have different experiences with scientific training or research.

• Please do not use slang, swear words or any other offensive language in the forums. Repeated use of offensive language will result in your forum privileges being revoked and possible removal from the course. So please strive to use inclusive language that doesn’t discriminate against any individual or subgroup of people.

• If someone posts something offensive in the forums please contact us at courses@ibiology.com. Additionally, the course instructors will be monitoring the forums throughout the course so you can also report posts that you feel are inappropriate using the “Flag” function underneath any post (see screenshot
Feel free to continue the discussions in other forums, if you’d like. If you are going to use Twitter, for instance, use the hashtag #iBioCourses. (Not all tweets with that hashtag will be about this course, but many will!) Use this course as an opportunity to expand your professional network by connecting with colleagues with similar interests.

If you have questions about course content, please feel free to post them on the general discussion forum of the week containing the content you are inquiring about, or contact us via email at courses@ibiology.org. If you have technical questions, please post them in the "Report Technical Issues" forum topic for this course.
Watching the course videos and completing the course assignments will hopefully be very useful to you. However, don’t miss the opportunity to deepen your learning by engaging with your peers in the course through the discussion forums.

**Unit: Course Goals/Mission Statement**

The “Share Your Research” course will provide you with the how-to knowledge, practical strategies, and effective communication skills for crafting and delivering a good research talk. The course draws from the expertise of communication professionals (who are part of the iBiology Team), as well as practicing research scientists. After completing this course, you will be able to:

1. Develop strategies for building a good research talk, customized to your needs, goals, and style.
2. Define the audience, goal, and message of a talk and use this framework to develop effective research presentations.
3. Design clear slides that inform your audience and achieve the goal(s) of your talk.
4. Apply strategies for keeping your audience engaged.
5. Establish a presentation style in which you feel comfortable and confident.
Module: Module 1 : Framing Your Talk

SECTION: LESSON 1 : WHAT IS THIS COURSE ABOUT?

Unit : Learning Objectives

At the end of this lesson you will be able to:

- Articulate why scientific research talks are important.
- Describe what makes a research talk effective.
- Describe what is going to be covered in this course.

Unit : What is a Good Research Talk?

This video introduces you to what makes a research talk good, and what will be covered in this course.

Video : https://youtu.be/AknZHQHaQic

Speaking in front of other people is almost always a stressful experience, even for those who enjoy giving talks. But just because you don’t love giving a talk about your scientific research, it doesn’t mean that you can’t do it well and effectively. Giving good research talks is a skill and is something you can learn and improve on.

The purpose of this course is to help you build and deliver your best and most effective scientific research talk. And, to walk away with skills and knowledge that will allow you to continually improve, long after you have finished the course.

A few notes before we get started. We will use research talks (or presentations) and scientific talks (or presentations) interchangeably throughout the course. What do we mean by a good research talk? We mean a presentation that is effective, that succeeds in
meeting its goals and delivering its message clearly and concisely to its intended audience. That’s why you will see us use good and effective interchangeably, too. We’ll dive deeper into these ideas as we go through the course.

Welcome to Share Your Research: How to Give a Good Talk!

Assessment: Q1
Spend a moment reflecting on what you are hoping to get out of this course. Please write 2-3 goals for yourself with this course.

For example, what do you want to improve in giving a research talk? Are there specific aspects of building and delivering a research talk you want to work on?

Unit : Reporting Technical Issues
iBiology Courses V2 is currently in beta. We’ve tested it internally for some time, but some things still might not work quite right.

If you have experience any technical issues using this course, please use the technical issues topic in the discussion. Please include as much detail as you can...screenshots always help!

If the forum itself isn’t working, or you prefer not to use it, you can always email us directly at courses@ibiology.org.

We really appreciate your help!

SECTION: LESSON 2: BEFORE YOU BUILD YOUR SLIDES

Unit : Learning Objectives
At the end of this lesson you will be able to:

- Explain why self-reflection is key to putting together a good talk.
- Describe The Framework of a talk: know your audience, know your goal(s), and know your message.

- Explain why the length of the talk is important to consider when designing your talk and slides.

- Internalize that the self-reflection process is individual and the best process for you may look very different from someone else’s process.

**Unit: The First Step in Building a Research Talk**

In this video, you will learn about the work you need to do before you start making your slides.

Video: [https://youtu.be/CNcj2y03naE](https://youtu.be/CNcj2y03naE)

Before you even start putting together the slides for your talk, there is critical work that needs to happen. For every talk, you will need to define three things: who is your audience, what is (or are) your goal(s), and what is the core message you want to convey. These three make up the critical **Framework** that underlies every talk.

**The Framework = Audience + Goal(s) + Message**

We will dive deeper into each of the parts of *The Framework* in this course. Through this in-depth investigation, you will see that defining your Framework will help making decisions about what to include or leave out of your talk a lot easier. Your Framework underlies all the content you choose to use in your talk and is an important touchstone you will refer back to again and again. Defining *The Framework* for your talk is a self-reflective exercise that takes time and iteration, but is well worth the effort in the end.

**Assessment: Q2**

Identify the research talk you will work on and use as your personal example in this course. It could be a research talk that you are about to give, or a talk that you did give, but want to revisit. Describe the setting of the talk (is it a group meeting? Conference talk? etc.) and the length of the talk.
At the end of this lesson you will be able to:

- Explain why an effective talk is tailored to your audience.
- Outline a plan to define your audience.
- Identify ways to tailor your core message to your audience.
- Set goal(s) for your talk based on your audience.
- Define the core message of your talk based on the audience and the goal(s) of the talk.
- Frame the core message of your talk around the most important finding from your research or the key takeaway.
- Use the “half-life your message” technique to distill your core message.

In this video, you will learn that a successful and engaging talk is one tailored to your audience.

Video: https://youtu.be/F2GW150UJ4E

An effective research talk takes an audience-centered approach. Yes, you are giving a presentation to tell your audience about your work, but you should design it with your audience in mind. You should think about your research from their perspective.
Who is your audience? What is their expertise? How familiar is your audience with your field of study and its experimental methods? What do they care about? What might your audience find interesting or relevant? Answering these questions will help you determine, for example:

- The experiments or research you choose to highlight in the body of your talk and how you talk about them.
- The information you choose to include in your introduction.
- How to engage your audience through the use of stylistic techniques, such as hook and stories.
- How to make your talk accessible to your audience through language (e.g., avoidance of jargon) and the use of analogies.

But, how do you find out about your audience? You can ask the organizers of the talk or conference who the audience is. For example, how much expertise does the audience have in your field? Are they trainees? You can look at previous editions or speakers of the same event, to see what kind of experts they have invited before. Are the previous speakers in a similar field as you? What topics have previous speakers talked about? How does your work fit in in the context of the conference line-up? Finally, you can use the internet to gather information about your audience. For example, you can look at the website for the conference or the department you will be speaking to. You can gather insights about their interests or expertise from the description of the conference or looking at the list of faculty for a department.

In short, assessing who your audience is, their prior knowledge and interests will help you set up *The Framework*, determine what information to include in your talk, and how to deliver it, resulting in an engaged audience. We will dive more into this later in the course.

**Assessments**

In the previous lesson you identified a presentation you will be using as your example work in this course. Using this example presentation:

*Assessment: Q3*
List 3-4 questions you want to ask about your audience and how you will go about answering them (e.g., I will ask the meeting organizer the level of expertise and the demographics of the audience).

Assessment: Q4

After you have answered the question above as best as you can on who the audience for your example talk will be (you might need to make some assumptions, but that is OK). Write a brief description of that audience here.

Assessment: Q5

List 2-3 examples of how you will tailor your presentation to your audience (e.g., Identify a key concept from your research that you need to define).

Unit : Know Your Goal

In this video, you will learn about the value of setting achievable goals for an effective talk and how to set them.

Video : https://youtu.be/ydSxq0okuSM

Setting a goal for your talk is a major part of defining The Framework. The goal of your talk is basically what you want to accomplish with it. For many scientific research talks, your goal will be to inform your audience about your research. However, you might also give a talk with a goal of landing a job or getting funding for your research, and so a scientific talk can have other goals in addition to inform, such as to persuade, inspire, convince, or pique the curiosity of your audience, to name a few.

The goal(s) of your talk will be informed by your audience. For example, if you are speaking to an audience of experts in your field, the goal of your talk might be to convince them of the novelty or significance of your work. On the other hand, if your audience is potential funders for your research, your goal might be to persuade them to fund your project. Try to limit yourself to 1 or 2 goals per talk because trying to meet many goals can dilute or confuse your main message and make the talk less effective overall.
Assessment

Assessment: Q6
Using the example talk you previously identified, define the goal(s) for your talk.

**Unit: Know and Distill Your Message**

In this video, you will learn about defining, tailoring and distilling the core message of your talk.

Video: [https://youtu.be/Nk62hE7xG_A](https://youtu.be/Nk62hE7xG_A)

The core message of your talk is the main idea or key takeaway you want your audience to leave with. Often the core message is the most important finding from your research that you want the audience to remember. Defining your core message rounds out *The Framework* of your talk (audience + goals + message).

It is critical to tailor the core message of your talk to your audience and your goal. For example, when speaking to an audience of scientific peers, your message could be about the novelty of your findings. On the other hand, when speaking to a non-expert audience, your message could focus on the implications of your findings to everyday life. Tailoring your message, in conjunction with considering the length of the talk, will help you decide which supporting data you need to have in the talk to effectively convey and back up your core message.

You really want to make sure your talk has only one core message. For example, you might have a take-home message for different parts of your talk, but they should all support your one overall core message. To communicate the core message of your talk effectively, you need to distill it to its essence, say a sentence of 15 words or less. Sticking with one core message will help you tailor the content that goes into your research talk. You can even try to say that 15 words-or-less version of your core message at some point during your talk.

To help you distill your message, we recommend you try the “Half-Life Your Message” technique, which is inspired by improvisational theater.
“Half-Life Your Message” Instructions

“Half-Life Your Message” starts by having you state the core message of your talk in 60 seconds. Next, you have to distill that message (not say it faster) to be able to state it in 30 seconds, then 15 seconds, and finally 8 seconds. The purpose of this technique is to extract what is essential to convey your main point. You typically do this exercise with a partner so they can give you feedback on how well you conveyed your core message.

Assessments
Continuing to work on your example talk, do the following:

Assessment: Q7
Find a friend or colleague and practice the “Half-Life Your Message” exercise with them and then document any feedback they gave you or any reflections you had about the process here. Use this worksheet to help you.

Assessment: Q8
Using the insights from the “Half-Life Your Message”, write down the core message of your example talk in 15 words or less.

Assessment: Q9
List the individual experimental data from your research that you think will be necessary to support your core message.

Recommended Reading


- “Half-Life Your Message” video, Michigan Online
SECTION: LESSON 4: YOUR SPEAKING STYLE

Unit: Learning Objectives

At the end of this lesson you will be able to:

- Explain how someone's speaking style is unique to them and a reflection of their personality.
- Discuss why the way information is delivered is as important as the information itself.
- Define your speaking style and leverage it to become a more engaging speaker.
- List some best practices for public speaking.

Unit: Know Your Speaking Style

In this video, you will learn how to establish, refine and then leverage your speaking style to deliver an effective talk.

Video: https://youtu.be/uZctRI3tH3M

As scientists, we are trained to think that talks are all about sharing our results and the progress we have made on our projects. However, there is more to talks than just data. The way information is delivered is as important as the information itself.

Your speaking style is the unique way in which you deliver information to your audience. Whether you are outgoing or more reserved, you can still share your work effectively. Some speakers are loud, humorous, and conversational; others are more soft-spoken, reserved, and formal. There is a broad spectrum of personalities in the scientific world, and speaking styles are usually a reflection of individual personalities. No matter what speaking style you have, it's important to strive for being comfortable with your own delivery. Being comfortable builds confidence, which allows you to engage with your audience most effectively.
Finding your voice and your speaking style takes time. You have to experiment to see what makes you most comfortable and confident. An excellent way to figure out your speaking style is to film yourself. While challenging for some, this exercise allows you to see yourself and note any aspects of your speech, body language, or delivery you like or want to change or improve.

Assessment: Q10

List 3 things you would like to work on in your speaking style and how you will go about doing so (e.g., are you using too many filler words like “um” or “you know”? Are you moving around a lot?). We recommend filming yourself practicing or giving a scientific talk (or find a recording of a talk you have given before). You could also ask others for feedback or do a self-reflection to help you come up with this list.
Module: Module 2 : Start Building Your Talk

SECTION: LESSON 5: TALKS ARE NOT PAPERS

Unit : Learning Objectives

At the end of this lesson you will be able to:

● Articulate the main differences between a scientific paper and a scientific presentation.

Unit : Talks are not Papers

In this video, you will learn key differences between a scientific paper and a scientific presentation.

Video : https://youtu.be/8QxaUvdes1E

Most of us will have read (and maybe written) scientific papers and are familiar with their general structure: abstract, introduction or background, methods, results or findings, discussion and conclusions. Often they will also have supplementary materials. Papers tend to include as much detail as possible, to allow the readers to make sense of the data and conclusions, and possibly replicate and build upon the research. As such, readers can take as much time as they need to digest the information in a paper and extract meaning that is useful to their needs.

Although it might seem like a paper could be easily turned into a good talk, the reality is that talks serve a different purpose and thus must be constructed differently. Talks are “teasers” or digests of your research given in front of a live audience. Ultimately, you want to leave your audience interested and aware of your findings, with some even inspired to learn more by asking you questions as a follow up or by reading your papers (if published). That means you need to give your audience only the essential information they need (from introduction, to data, to implications and future directions) to understand your core message in a limited amount of time. For example, you might not need to describe all the details of a technique because that’s not necessary to understand the
main outcome of an experiment; or, you might not need to include the data from control experiments, but you can briefly acknowledge that those experiments were done or cite your paper for reference.

You have some freedom with how you order the content of your talk (e.g., you can start by presenting your research question, instead of with the background; more on that later in this course). Talks are an opportunity to give your audience a behind the scenes look at your research, how you came up with certain ideas, your motivations and struggles, and the human behind the research. They are also a chance to tell a story about your work, keep your audience engaged and kickstart a conversation with them. Understanding the key differences between a paper and a talk will help you build an effective and more engaging presentation.

In summary, your talk should only contain the information that is essential for your audience to understand your core message and for you to meet your goal. They are an opportunity to tell more of the story that isn’t captured in papers, which might provide interesting and useful information to your audience.

SECTION: LESSON 6: THE STORY OF YOUR RESEARCH

Unit : Learning Objectives

At the end of this lesson you will be able to:

- Understand the similarities between the key components of a story and those of a research talk.

- Identify key narrative elements of your research talk.

- Understand how different storytelling techniques can be used to make a research talk more effective.

- Apply different storytelling techniques in your research talk.
Unit: Your Talk as a Story

This video explores key elements of storytelling and how you can use them to craft a more compelling and effective research talk.

Video: https://youtu.be/A5h7fF7gxjk

Humans have used stories or narratives (defined as an account of a series of events, experiences or details) to convey, understand and remember information — to make sense of the world — since early in the history of humanity. Our brains love stories. This is why stories are an effective way to engage an audience and make your work more relatable and relevant to them.

Fundamentally, every scientific talk is a story. And, like stories, scientific talks have an arc or logical flow: a beginning (the introduction), a middle (the body of the talk) and an end (well, the ending or conclusion). We will be exploring each of these parts further later in the course.

But before you dive into these and into making your slides, we want you to think about the arc and the narrative elements of your research talk:

- Exposition (Introduction/Background): This is where you set the stage, introducing your audience to your research topic and question, and give them enough background information so that they can follow the rest of the talk.

- Inciting Incident (Research Question). What is the main research question your work seeks to answer? This is the “inciting incident” that “triggers the action” (i.e., the experiments and results) of your story (aka your research talk).

- Rising action (Experiments and Results). This is where most of the action of your research happens. A series of experiments and results that eventually (and together) lead you to the answer of your research question(s).

- Climax (Discovery). This is the outcome of your research, the highest or most exciting point in your story!

- Resolution (Conclusion/Ending). This is where you summarize the results of your work, the conclusions and implications of your discovery.
Thinking about your talk as a story can help you string together its different pieces to present a compelling and cohesive narrative that conveys your passion, the process, and the relevance of your work to your audience. Thinking about the story you want to tell before you actually start building your talk and slides will help you select which content to include in the introduction, body and ending of your talk.

**Recommended Reading**

- [Using narratives and storytelling to communicate science with nonexpert audiences](#)
- [Storytelling: the soul of science communication](#)
- [Dialogues: The Science and Power of Storytelling](#)
- [The art of storytelling | Pixar in a Box](#)

**Assessment: Q11**

Identify the key elements of your research story using the example talk you have been working on so far. Write down a few bullet points or sentences of which information, data, figures, etc. you could use for each of the following.

a. Exposition (Introduction/Background)

b. Inciting Incident (Research Question)

c. Rising action (Experiments and Results)

d. Climax (Discovery)

e. Resolution (Conclusion/Ending)

**Unit: Storytelling Techniques**

This video digs into different storytelling techniques you can use in your talk.

**Video**: [https://youtu.be/aKvq1rRjTgs](https://youtu.be/aKvq1rRjTgs)
There are different ways to incorporate storytelling into your talk. For example, you can use individual stories or vignettes to convey specific ideas or emotions. There are different types of vignettes you can use. For example, vignettes of triumph, excitement, impact, struggle or failure. Story vignettes can help bring your audience with you to a specific important moment of discovery. They can help engage your audience by making your research relatable. For example, you can tell a story of that experiment you did on a whim that ended up becoming the most important one of your research project.

There are different storytelling techniques or strategies you can use to share individual stories or vignettes in your talk. Using these will help you connect and engage with your audience to help you meet the goal(s) of your talk and help your audience remember your core message. You can use more than one at the same time.

- **Paint a scene to transport the audience.** Use your words, slides, and body language to paint a vivid picture of what happened, what you saw, felt or experienced to bring the audience to that moment with you. Think about how you can bring the audience along with you on the journey of your research.

- **Make it personal.** Don’t be afraid to bring yourself into the story. It’s OK to share your emotions and struggles with your audience. To tell them why your work matters to you so much. Making your research personal can help make a complex or abstract concept tangible and accessible.

- **Build empathy.** Empathy is the ability to understand and share the feelings of another. Storytelling can help your audience feel empathy for you or the subject of your research (e.g., a shark, like in the video or the people who will benefit from your work), and thus care or appreciate more the relevance of what you are doing.

- **Create suspense.** Stories (like your research) have tension: a specific and unresolved question. You can use that to your advantage to create suspense and keep your audience interested and engaged during your talk.

- **Show, don’t tell.** Instead of just telling your audience about something that happened during your research project, show them by using vivid descriptions of that one time in the lab or narrating the play-by-play of how you felt when you finally got that key piece of data that helped you prove your hypothesis.

Use your *Framework* (audience, goal and core message) to help you decide which types of stories and storytelling techniques to use in your talk. You should think about which
types of stories and techniques could make your core message more memorable to your specific audience, based on what you know about their interests or expertise. You should also think about which stories and techniques are better suited to help you meet your goal. For example, if your goal is to convince a hiring committee that you are the right fit for the job, you might want to use a combination of stories of struggle and success to show that you are able to overcome obstacles and learn. To tell those stories, you can mix making it personal with creating suspense about your results. Something else you should consider when choosing story types and storytelling techniques is your speaking style. Some people feel comfortable with making the talks very personal, while others do not. While we encourage you to try things out of your comfort zone, think about types of stories and techniques that fit your speaking style best.

**Recommended Reading**

- [7 Storytelling Techniques Used by the Most Inspiring TED Presenters](#)
- [Walk Through the Fire](#)

**Assessment: Q12**
Write down 1 or 2 different story vignettes (e.g., about triumph, excitement, impact, struggle, failure, etc.) that you could use in your research talk.

**Assessment: Q13**
Choose a storytelling technique from the examples presented in the video, the list above or of your own preference, and use it to convey the story vignette you wrote down in the previous assessment. Write out bullet points or a few sentences of how applying your chosen technique to the story vignette will look like.

*For example, if your story vignette is about an experiment that took many years to work, you could ‘make it personal’ by describing both the difficult process you went through and the emotions you felt. Remember you can also apply multiple techniques to the same story at the same time. For example, in this example, you could ‘show not tell’ the specific time in the lab when the experiment finally worked, setting the scene with descriptions of the environment, emotions and people.*
Section: Lesson 7: From Ideas to Slides

Unit: Learning Objectives

At the end of this lesson you will be able to:

- Identify your process for outlining your presentation.
- Apply fundamental strategies and tools to build effective slides.
- Understand that when it comes to slide design, — from visuals, to titles, to content — simple is better.
- Follow best practices for acknowledging collaborators, funders, and holders of copyrighted data or multimedia.

Unit: Starting To Build Your Slides

In this video, you will learn how to go from The Framework (audience + goal + core message) to a talk outline to help you turn your ideas into slides.

Video: [https://youtu.be/cA1Vvs-nMCo](https://youtu.be/cA1Vvs-nMCo)

Transcript (.txt)

There are many different ways to begin putting your presentation together. Most of them involve some kind of outline to help organize your thoughts and get what's in your head out into the world. You should consider your working and organizational styles to figure out what type of outline will be most helpful to telling the story that you want to present. You might create a written outline with headers, sub-headers, and bullet points. Or you might just write your main ideas in free form. Your outline could look more like a script of what you want to say in your presentation. An outline can also be visual, like a storyboard (i.e., sequence of illustrations or images) that you create on a piece of paper or using software like PowerPoint. You should feel free to try any and all of these strategies, and those presented in the video, to see which works best for you.
The process of creating your outline and translating it into slides will be iterative and does not necessarily need to happen in order e.g., you might start with the data you plan to include in the body of the talk and then work backward to determine what goes in the introduction. As you progress through your outline, you will continue to iterate on different parts of the talk. You should constantly check-in with yourself and ask ‘what information is essential to help me meet my goal and deliver my core message effectively to my audience?’ You will never have enough time to tell your audience about all of your data or all of your projects, and having an outline can help you pare down what you include in your talk. Remember to break your talk down into digestible chunks that you can then put on individual slides. Each one of these slides should help the audience understand the story that you are narrating during your presentation. The next unit will dive deeper into how to do this.

A few other things to keep in mind as you are creating your outline:

- Remember The Framework. Your audience, goal(s), and message will help you determine what to include in your outline.
- Remember the arc of your research story. Keeping in mind the narrative structure of your talk as you are building your outline will help you choose which types of stories and storytelling techniques to include in your outline.
- Remember that your talk is not a paper. This will help you choose which data and information to include in your outline.

Unit : Building Effective Slides

In this video, you will learn about how to use slide design to make your talk more effective.

Video : https://youtu.be/J2uDiHeV-ZQ

You might be wondering, why am I learning about building effective slides before I learn about how to structure my talk or what content to include in the introduction, body, and ending of my talk? Although it might seem counterintuitive, we wanted you to have the
principles and strategies to create good slides before you actually start making them, so you don’t have to go back and overhaul them. But, as we have said before, the process of building and delivering a good presentation is iterative and individual. So, after completing this course you might realize that your slides are your outline and you need to draft them first, and then refine them.

Building effective slides is a key ingredient for giving a good research talk. Making sure that the content of your talk is presented in clear, cohesive, and understandable ways is as important as the content you include in your slides itself. Having well-designed slides, both in terms of style (e.g., color, fonts) and content (e.g., data and information), will help you meet your goal(s) and deliver your core message effectively to your audience.

Here and in the video, we provide an overview of some fundamental DO’s and DON’Ts of slide design to help you communicate your research more effectively and help your audience understand complex data more easily. Remember that clarity and simplicity are of the utmost importance.

1. **DO** keep your slides simple: A busy slide is distracting and could dissuade your audience from reading it or paying attention. A well-designed slide should have a clear title echoing its key message and one or two key supporting figures or images. Make sure that your slide is not crammed and that there is enough negative or white space. Search for downloadable templates online to assist you with slide layouts. Templates exist for all major presentation software applications: Keynote, PowerPoint, Google Slides, etc.

2. **DON’T** have a lot of text on your slides: Avoid using big blocks of text (i.e., too much text). You want your audience to pay attention to what you are saying. You can’t expect them to read and listen to you at the same time. Whenever possible, text should be replaced with visuals. If it is absolutely necessary to use text, make sure to summarize it and use short bullet points to highlight key takeaways.

3. **DO** simplify how you are displaying your data: As a general rule, showing a screenshot from a paper is never a good idea. Each slide should only contain the information that is essential for your audience to understand the message. Get rid of the things that do not support your message (e.g., remove nonessential data points). When dealing with complex slides, you can rely on animations to dissect the data and guide your audience through it. Use circles or arrows judiciously to
highlight key pieces of information. GraphPad’s Prism and R are useful tools for compelling data visualization.

4. **DO** mind your colors: Slides that are too colorful are distracting, and bland slides are uninteresting. You can use colors strategically to emphasize or call attention to certain elements of your slides. For example, you can use colors to highlight text or a key piece of data. When picking the colors for your slides (both background, text, and images) consider contrast and the lighting in the room you will be presenting in (if it’s possible to learn this beforehand). For example, while a black background can draw attention to colorful microscopy images, dark background colors can look dull in a bright room. Also, it is important to consider if the colors you are using will be accessible to the majority of your audience. Be mindful that some people are colorblind and will not be able to see certain colors.

5. **DO** choose your fonts wisely: As with colors, typography and fonts can be a source of distraction. Usually, Sans Serif fonts, such as Arial and Helvetica, work best for slides projected on-screen. Don’t use more than two complementary fonts and make sure the font size you pick is legible, particularly in a large auditorium. Titles should be larger than the rest of the text on your slides (more on how to choose your talk titles later in the course). Stylizing effects, like bolding and italicizing, should be used sparingly for emphasis.

6. **DON’T** use low-resolution images: Images and figures in your presentation should be of high quality. You can show your own or look for high-resolution royalty-free or open-access images online. Make sure you have the rights to use these images and mention the copyright holders on your slides, especially when posting your slides online or presenting at a conference.

7. **DON’T** overuse transitions and animations: Too many transitions and animations can be confusing and distracting. Limit the use of such effects and use them judiciously for emphasis. “Fade”, “Move,” or “Slide” transitions are simple and are the least distracting.

**Recommended Reading**

- [Color Blindness Simulator](#)

**Assessment: Q14**
Think of a piece of complex data that you plan including in your example talk. If you have the data in a slide already, have it in front of you to take notes or make a copy to modify it. What is the main message from the slide? What is the minimum information needed to send that message? Write down your notes below of how you can simplify the data.

SECTION: LESSON 8: START ASSEMBLING THE CONTENT OF YOUR TALK

Unit: Learning Objectives

At the end of this lesson you will be able to:

- Use The Framework to help you determine what and how much data should be included in the body of your talk.
- Understand how to select, organize, and present your data in the body of the talk to ensure it is clear, succinct, and engaging.
- Understand and apply strategies to break down the content in the body of your talk into smaller, more digestible parts.

Unit: Body of the Talk

In this video you will learn how to pick out the most relevant data to your core message, break that data down so the audience can grasp the results and their importance, and organize that data in a succinct and clear manner.

Video: https://youtu.be/yDM4pc4RPkw

The body of the talk is where you provide your audience with the bulk of the information (especially data) to support your core message and help you meet the goal(s) of your
presentation. If your talk was a three course meal, the body would be the main dish, with the introduction and the ending as the appetizer and dessert, respectively. Now, it might seem counterintuitive to discuss the body of the talk before discussing the introduction of your talk, because structurally, and when you deliver your presentation, the introduction comes first. Bear with us. As we have mentioned before, building a talk is an iterative process, and in our collective experience, getting started with the body of the talk can help you define which data will serve your goals, message and audience best, and then make sure you provide the right background and content in the introduction.

The body of the talk is the core of your presentation; it contains most of your data and supporting information (e.g., an explanation of your experimental design, results). You can think about breaking down the body of your talk into smaller parts.

1. Setting up the data: Describe the techniques and strategies you used to produce your data. What was your rationale for using those techniques?

2. Showing the data: Think carefully about how you are going to represent your data. What are the essential visuals, text, figures, and key takeaways you want to share?

3. What you learned from the data: What are the results? How do the data support your core message and goals? What is the significance of what you learned, considering your core message, goals, and audience?

4. What comes next: Are there future experiments or follow-up analysis you want to conduct? How does this data relate to what you are going to cover next?

Which content you include in the body of your talk will depend on your Framework. Keep in mind that the content in the body needs to help you build the full story of your talk. Also, remember that the body of your talk informs your introduction and will pave the way for the conclusions at the end of your talk.

If you have a talk that you are preparing for, we suggest that in addition to answering the assessments here and in the rest of the course, you start working on your slides now (if you haven’t already), and also apply what you are learning to the slide deck itself.

Assessment: Q15

Look through the data set for the research project you will present in your example talk. With your audience, goals, and core message in mind, pick out the most relevant data,
and summarize or distill each key result down to one main point that supports your core message, and list those key points here.

Assessment: Q16
Take each main point you listed above and briefly write:

a. How will you set up/introduce the data/techniques you used?

b. How will you show these data (e.g., a graph, plot, images)?

c. What did you learn from that data?

d. What are/were the next steps based on that data?
Module: Module 3: Rounding Out a Strong Talk

SECTION: LESSON 9: THE INTRODUCTION

Unit: Learning Objectives

At the end of this lesson you will be able to:

- Understand that a strong introduction helps frame the rest of your talk.
- Understand that The Framework (audience + goal + message) and the data you include in the body of your talk help you decide what goes into your introduction.
- Describe the information that will go into your introduction.
- Recognize that your introduction depends on the length of the overall talk.
- Define the hook of a talk and describe several examples of a hook.
- Understand why identifying the “so what” (or “why should my audience care?) is important for giving an effective talk.
- Understand that the “so what” can be different for different audiences.
- Identify the “so what” of your talk.

Unit: Introduction

In this video, you will learn how to build and structure an introduction for an effective talk.

Video: https://youtu.be/-RrNaR2yHlA

The introduction is the foundation to help your audience understand the rest of your talk. It provides them with the information they need to understand your research and why it is
important. Exactly what goes into your introduction will depend on how much time you have, and on *The Framework*: your audience, your goal(s), and your core message. You also need to make sure that the introduction provides enough background and context to help your audience understand the data and results in the body of your talk (this is why we had Body of the Talk first).

Typically an introduction is no more than ~20-30% of the final talk. An introduction can have different elements and be structured in a number of ways. Your *Framework* will help determine what content to include and the best format for the introduction. One possible format for an introduction, which we explore in this unit, is:

1. Start with a hook.
2. Reveal your research question.
3. State the “so what” of your research.
4. Provide sufficient background for your audience to understand your research.

We’ll dive deeper into the hook and “so what” next.

**Assessment: Q17**

Based on the audience, core message and goal(s) you have defined, and information that you have included in the body of your talk, what information do you need to include in your introduction? What information can you leave out? Write down a few bullet points or sentences summarizing that information here. If you are building slides at the same time as answering these assessments, use these notes to build the individual slides of the introduction section of your talk.

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**Unit: The Hook**

In this video, you will learn about how a hook can help you grab the attention of your audience.

**Video:** [https://youtu.be/EvtE-sVHHSw](https://youtu.be/EvtE-sVHHSw)
A hook helps you “grab” your audience’s attention using some sort of surprising or arresting information. It is most commonly used at the beginning of a talk in the introduction, but can also be used at other key moments of a presentation, to make sure your audience is engaged and focused.

Exactly what the hook is can vary dramatically from person to person and presentation to presentation. For example a hook could be:

- A picture or image
- A story
- A question to the audience
- A provocative statement
- A video
- Surprising data or information
- Something related to popular culture (say, a meme)

A hook can also be a combination of these ideas, or something we haven’t listed.

When you are thinking of using a hook, make sure it is appropriate for the audience. For example, a group of 4th graders probably won’t understand a reference to a movie from the 1950’s, but could be fascinated by a video of you using a microscope in the lab or catching a lizard in the field. It’s also important to know that using a hook might not fit with your speaking style, or might feel unnatural to do, and that is OK. We encourage you to give it a shot! An easy hook to try is asking your audience a rhetorical question (i.e., a question they are not required to answer), to get them thinking about the “so what” or core message of your talk (which is coming up next).

Assessment: Q18

Following the examples we provided in the text or the video, come up with two different types of hooks you could use in the introduction of your talk and write them down here. If you are building slides for your talk and want to use a hook, add those slides to the talk now.
Unit : So What?

In this video, you will learn about the “so what” and why it is important to help your audience remember and care about your research.

Video : https://youtu.be/iQVT8r3Gl6k

So what? Why should your audience care about your research? This “so what” is a critical question you must answer during your research talk. Having a clear “so what” will help you craft and deliver a more effective presentation.

Defining the “so what” can be challenging. You know that your research is interesting and important, but your audience won’t know unless you tell them how and why. On top of that, the answer to “so what?” might be different for different audiences.

How do you get started? A great first step is asking yourself: why is this work important and interesting to me? Then, put yourself in your audience’s shoes and adapt that “so what” based on who they are. What do they care about? As the video points out in its example, not every audience will appreciate the full technical details of your “so what”, but can very much appreciate the big picture. Make sure to adjust the way you describe the importance of your work to your specific audience. Don’t forget to keep in mind your goal(s) and message to help you define your “so what”.

To help you refine the “so what”, consult with your peers, labmates or research advisor. They can provide helpful feedback and suggestions. Your advisor in particular has probably gone through the exercise of defining the “so what” of their research for a talk, grant, or paper in the past.

Assessment: Q19
For the example talk you are working on, what is your “so what?” Why should people care about your work? Write it down here. If you are having trouble defining a “so what,” talk to a colleague or post in the discussion forum above. If you are building slides for a talk, go into the introduction section and add the “so what” to the talk now.
SECTION: LESSON 10: THE ENDING

Unit: Learning Objectives

At the end of this lesson you will be able to:

- Explain the importance of the ending or conclusion of a scientific talk.
- Identify the key elements of the ending for your talk.

Unit: Ending

In this video, you will learn the importance of the ending of your talk, as it is the last thing your audience will remember and your last chance to drive home your core message.

Video: https://youtu.be/pR_dNU-uAt4

Research has shown that people judge an experience largely based on how they felt at its peak and its ending (Kahneman et al.). Thus, making sure the ending is strong is as important as making sure you have a solid introduction and body of your talk. The conclusion of your talk is the last experience your audience will have before leaving your presentation; and like for movies or books, the ending can have a big impact on how your talk is remembered.

A good ending brings clarity to your research by summarizing and reinforcing your key findings and conclusions. For that purpose, summary slides can be very helpful. A good ending brings your talk full circle, connecting everything back to your core message and goal(s). (Yes! It always goes back to the Framework!) Remind your audience of your core message and state how your findings and conclusions support it. You can use visuals or bullet points to do so. A good ending can also kick off the Q&A, by presenting the next steps or further questions raised by your work.

Our three key elements of an ending are:
- Core message
- Summary of research
- Future directions

Other elements that you could also include:

- The impact or implications of your findings
- A call to action

These are great ways to engage your audience by sparking their curiosity while leaving them wanting more.

**Reference**


**Assessment: Q20**

For your example talk, briefly write down the three key elements of your ending (e.g., core message, summary of research, and future directions). If you are also working on building slides, make sure to spend enough time translating these ideas onto the slides so that they are as clear and concise as the talk’s introduction and body.

**SECTION: LESSON 11: TALK TITLES**

**Unit: Learning Objectives**

At the end of this lesson you will be able to:

- Understand that the role of a talk title is to pique the audience’s curiosity.
Craft an enticing and effective talk title that reflects the core message of your talk.

Unit: Talk Titles

In this video, you will learn what makes a talk title inviting and exciting.

Video: https://youtu.be/OD6dkKhBUf8

A title entices you to open a book or watch a film; the same applies to a research talk. The title is like your cover letter to your audience: a chance to make a good first impression. When picked carefully, the title of your talk will entice people to attend and listen to your talk.

As a general rule, the title of your talk should encapsulate your core message and give your audience a sense of what they are going to hear and why they would want to hear it. While your title should be descriptive, it needs to be short and simple. Avoid a title that is more than 10 words long. Think of the title as a preview of your research and not a summary.

You should also steer away from as much jargon as possible. Including technical or complex terms in the title will make your talk sound less accessible and might discourage people from attending.

When appropriate, and if you are comfortable with humor, you can experiment with funny or punny titles. A little humor can make your talk more memorable and inviting. In this case, having a descriptive subtitle can be useful.

Assessment: Q21

Use the core message you have identified and write down two (2) different possible titles for your example talk. Share them in the discussion forum to get feedback. If you are also making slides for a talk, choose the title you like best and make your title slide.
Unit: Iterating & Editing Your Talk Plan

Congratulations, you have just worked through creating a plan for your talk! Possibly, you have even built a first draft of your slides. The next part of the course goes over practicing and delivering your talk. But it’s important to remember that every talk needs to be edited and iterated upon, typically several times. So take some time now, and during the rest of the course, to revisit your talk plan and your slides, to make them clearer and more effective.

To help you do this we have created a “My Talk Plan” section at the end of this course. This section has two pages. The first page is an editable version of the plan you have made for your talk. This plan is comprised of most of the assessments you have already completed in this course. The second page in this section is a printable version of this “My Talk Plan” that you can print or save as PDF to keep for your records and help you build your talk.

So this week, and the following weeks of the course, make sure to go to the “My Talk Plan” or to revisit the lessons in the course and update and edit your talk as you give it more consideration and get feedback.
Module: Module 4: Giving Your Talk

SECTION: LESSON 12: CONNECTING WITH YOUR AUDIENCE

Unit: Learning Objectives

At the end of this lesson you will be able to:

- Develop strategies to communicate your message in a clear and concise manner to the audience.
- Use language and speaking styles that will keep the audience engaged.
- Articulate questions you can ask the audience to keep them involved in the presentation.
- Articulate analogies that will help the audience understand your data and core message.

Unit: Connecting With Your Audience

In this video, you will hear tips to connect with your audience—from employing clear language, to asking questions, to using analogies, and more.

Video: [https://youtu.be/OOMamCrNNNg](https://youtu.be/OOMamCrNNNg)

One of the most important elements of delivering an effective talk is making sure you are connecting with your audience. There are different ways to accomplish this. First thing is to consider your speaking style and what strategies align best with it.

Some general strategies to consider:
• Be conversational. Speak with your audience and not just at them. Think about ways in which you can interact with your audience.

• Use clear and concise language. Avoid being too wordy. Avoid jargon (or use it wisely). Jargon is the set of technical words and acronyms (i.e., shortcuts) that many scientists use in their specialized fields. Most people will likely not be familiar with the jargon in your specialty and using too much jargon might alienate them and keep them from understanding. Simple is always better.

• Define key concepts. Make sure you define concepts that are essential to help your audience understand your research and follow along with your talk (e.g., the name of a gene, a jargon word).

• Consider the context in which you are giving your talk and that of your audience. Are you at a big conference? Is your audience international?

• Ask questions to your audience. Asking questions (rhetorical or not) keeps your audience actively engaged in the presentation and helps them critically consider the topics and concepts you are covering.

• Use analogies. Analogies can help the audience understand more abstract concepts by comparing them to something they are already familiar with.

• Use repetition. Repeat key messages, concepts, or ideas that are essential for your audience to understand your core message.

A few additional things to remember:

• Don’t put your back to the audience. You can’t be engaging unless you are facing your audience. An effective talk is a give-and-take dialogue between the speaker and the audience.

• Make sure you can be heard clearly. Remember to ask if the audience can hear you OK at the start of the talk and use a microphone.

• Make sure that your pacing is appropriate. It is natural to speak fast when you are nervous. But, if you speed up, you will lose your audience because they most likely won’t be able to follow.
For your convenience we’ve also created a handout of these tips, so you can download them and keep them handy for the next time you give a talk.

Assessment: Q22

Identify two (2) examples of jargon you commonly use to talk about your research and write them down below. Consider if the words might be inaccessible (i.e., difficult to understand) or misinterpreted (i.e., they might have other meanings to people outside of your field of expertise). Then determine which strategies (e.g., using analogies, defining a key concept) you can use to explain or describe the jargon terms to make them more accessible to your audience and also write those down. We recommend checking out this Watch Your Words Toolkit by American Geophysical Union. It has some great examples of jargon words with dual meanings (even if you are not a geophysical scientist, we think it will help you get the idea). The toolkit also has a worksheet with some simple questions and prompts to help you determine whether or not a word is jargon and how to simplify it.

SECTION: LESSON 13: PRACTICE AND FEEDBACK

Unit: Learning Objectives

At the end of this lesson you will be able to:

- Reflect on your own strategies, or the strategies of others, for practicing a presentation.
- Describe the strategies you will use to practice your presentation.
- Identify individuals who will observe you practicing your presentation and give feedback.
- Adapt and apply a framework for getting feedback.
Unit: Practice, Practice, Practice

In this video, you will hear strategies for practicing and receiving feedback on your presentation and will be encouraged to find out which may work best for you.

Video: https://youtu.be/-XAraXi_ZxU

Practice won’t make you perfect (perfect doesn’t exist!), but it will make you a LOT better. Practicing your presentation is key for delivering a successful talk. Practicing your talk will not only help you refine your delivery, and solidify your speaking style, but it will also give you confidence in both.

You can practice what you are going to say and how you will say it. Practicing can help engrain what you want to say into your brain and also make you feel more comfortable and confident in your delivery.

Some strategies to help you practice are:

- Scripting the entire talk and following the script when presenting.
- Making notes and memorizing the main points of the talk.
- Writing down bullet points for the key take home messages you want to deliver.
- Videotaping yourself or presenting in front of a mirror.
- Give your presentation in front of peers or colleagues.

We recommend you try one or a combination of the practicing techniques above to see what works best for you. These are just some examples and we encourage you to try others.

Practicing in front of others is a great opportunity to get feedback. Does your talk make sense? Are your slides clear? Are you using too much jargon? Is your core message clear? Did you meet your goal? These are things that your friends and colleagues can give you feedback on. Combined with practice, getting constructive feedback from people will help you get better and better at giving a talk.

We have created this checklist to help you collect feedback from others.
**Recommended Reading**

*How to Give and Receive Effective Feedback.* This resource from the University of British Columbia has some great advice, prompts and materials to help you give and receive feedback effectively.

*Assessment: Q23*

Describe how you will practice your talk (e.g., will you script your talk? Will you practice in front of a mirror with or without visuals? Will you record yourself? etc.).

*Assessment: Q24*

List individuals or groups of people that you would like to receive feedback from on your presentation. Provide them with the “Checklist for Getting Feedback” before you practice in front of them in order to get the most targeted, useful feedback. Feel free to adapt the checklist to your own circumstances/needs.

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**SECTION: LESSON 14: TAKING THE STAGE**

**Unit : Learning Objectives**

At the end of this lesson you will be able to:

- Implement strategies to avoid any issues with technology, location, and/or other unexpected bumps in the road before and during a presentation.

- Identify what to wear during a presentation to help you feel comfortable and confident.

- Recognize that being nervous before and during a talk is normal.

- Outline strategies to control your nerves.

- Reframe the Q&A session as an opportunity for learning and exchange with the audience.
• Identify strategies to anticipate questions and to know what to do when you can’t answer a question.

**Unit: Before Taking the Stage**

In this video, we provide strategies to avoid technical issues during your presentation, become used to your presentation environment and choose what to wear.

**Video:** https://youtu.be/2ameK6uoRMU

We spend so much time thinking about the substance and delivery of our talks that other important details can get lost in the background. To avoid getting caught off guard on your presentation day:

1. Find out as much as you can about the presentation space.

2. Ask about the available technology (projectors, speakers, microphones, etc.) and adapt your presentation accordingly (e.g., if you can’t use video, what are some still images you can use instead?).

3. Test that technology before the talk.

4. Get informed about how to proceed if you have any technical difficulties (e.g., who do you call in case of issues).

Another detail that often gets overlooked is what to wear. First and foremost, you should wear an outfit in which you feel comfortable and confident. Talk to administrators, organizers, your mentor, or other presenters to determine if there is a dress code (formal, semi-formal, casual). Take some time before the day of the talk to consider what to wear so as to match the setting in which you are presenting.
Unit: Lessening The Nerves

In this video, you will learn about why it is normal to be nervous before and while giving a talk and ways to lessen the nerves.

Video: https://youtu.be/CEEB6gDos8o

Even experienced speakers get nervous when giving a talk. So the nerves you feel before and while presenting are completely normal. Here are some tips to help combat the nerves:

1. Before the talk:
   - Be well prepared. Build a strong slide deck, practice your talk, and make sure all the tech components are working.
   - Know or memorize the first 3-5 minutes, or just the first few phrases, of your presentation to get you started until you establish your rhythm.
   - Shake it up! Stretch or try some breathing exercises.

2. During the talk:
   - Concentrate on something or someone during the presentation, like the back wall of the room or a comforting audience member.
   - Try to smile. Smiling can give you a sense of well being.
   - Use humor during your presentation (if it fits your style). For some, humor can be relaxing.
   - Remember to breathe. Transitions between slides can serve as a good reminder to take a deep breath.
   - Have cues on your slides to help you remember your main talking points.
   - Remember that it is not a big deal if you stumble over your words or forget to say something. This happens to everyone and it’s very likely no one except yourself will notice.
Assessment: Q25

Now that you have seen others’ examples of how to lessen the nerves on the forum, list your favorite 2-3 strategies you will try before or during your next talk to help you lessen the nerves.

Unit: Dealing with the Q&A

In this video, you will learn about dealing with the Q&A session after a scientific talk.

Video: https://youtu.be/9cvHkV7z-nA

The question and answer (Q&A) session at the end of a talk is often a source of anxiety. While the Q&A can be nerve-wracking, it helps to reframe it and think about it as an opportunity to have a conversation or exchange knowledge with your audience. Here are some strategies to lessen your anxiety about the Q&A:

1. Try to predict the questions you might be asked:
   - Think about unanswered questions in your field and any potential conflicts or disagreements about your research.
   - Ask your advisor or peers about questions they have gotten when they presented on a similar topic.
   - Preemptively include the answers to some of the questions you have anticipated in your talk.

2. Ask for clarification if you don’t understand the question.

3. Be ready for questions you don’t have an answer for:
   - Acknowledge the validity of the question.
   - Admit that you do not have an answer but you would be willing to pursue the question in the future. (It’s OK to say you don’t know!)
   - Solicit input from the questioner or other members of the audience.
Assessment: Q26

What are some questions you can anticipate you might be asked during your talk? And, what are your responses to those questions?

Unit: Congratulations

Congratulations! You have finished “Share Your Research: How to Give a Good Talk.” You have just learned how to take your science and turn it into an engaging research talk. By finishing this course you now have:

- A detailed outline for your research talk.
- Techniques and strategies for delivering an engaging and effective talk.
- Approaches for finding and refining your preferred speaking style.
- Strategies for practicing and receiving feedback on your talk.

Make sure to take some time to iterate and edit the “My Talk Plan” (and your slides, if you are building them), until you feel “done” with your talk. You can also review the My Talk Plan Worksheet

And don’t forget to revisit the course or the other worksheets when you next have to give a talk. For your convenience, we’ve collected all the worksheets, along with some helpful tips and advice in the form of handouts, in the course onto one page for easy access.

Now that you’ve finished the course, please head to the next page and fill out the post-course survey so we know what you think about it!
Module: My Talk Plan

SECTION: MY TALK PLAN

Unit : My Talk Plan : Review

As you have worked through the “Share Your Research” course, you have been completing a series of assessments to help you apply what you’re learning. The responses to most of these assessments were captured in a downloadable document called “My Talk Plan”, which is essentially an outline for your research talk. We have created a worksheet version of "My Talk Plan" so that you can have the outline handy to serve as a reference in the creation and delivery of future talks.

*We remind you that a good talk is a presentation that is effective, that succeeds in meeting its goal(s) and in delivering its message clearly and concisely to its intended audience.*

*(In the online version of the course, you would be able to view and edit your My Talk Plan here.)*

Unit : My Talk Plan : Print

This page provides a printable version of your "My Talk Plan." If you’d like to continue editing your plan, please view the My Talk Plan: Review page.

If you wish to print this page, go to File in your web browser and click Print. We recommend saving it as a PDF. If you wish to do so, then you would click Open or Save as PDF in the printer window.

*(In the online version of the course, a print version of your My Talk Plan would appear here.)*
Module: Worksheets

SECTION: WORKSHEETS

Unit : Worksheets

For easy reference, please find below the worksheets that we use in the course. We have also included some handouts with tips and guidelines we offer in the course. We recommend that you use these worksheets and handouts after the course as you build and get feedback on future talks.

- Module 1, Lesson 3:
  - Worksheet: Distilling Your Message

- Module 1, Lesson 6:
  - Handout: Narrative Elements of Your Talk
  - Handout: Storytelling Techniques

- Module 2, Lesson 7:
  - Handout: DO's and DON'Ts of Slide Design

- Module 4
  - Lesson 12:
    - Handout: Strategies to Connect with Your Audience
  - Lesson 13:
    - Worksheet: Watch Your Words Toolkit (from the AGU)
    - Worksheet: Getting Feedback Checklist

- Module 5, My Talk Plan:
  - Worksheet: My Talk Plan