



# SCIENCE TALK

## Science Presentations for Non-Science Audiences

*Preparing for a taste of science talk*

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*Congratulations!*

You're giving a talk at a taste of science festival! Now comes the fun and challenging part. It's time to boil down your research into an engaging 20-minute presentation for a group of slightly tipsy non-scientists. Fun, right?

Wait? What?

You're afraid of public speaking?

When we watch an outstanding presenter we assume they are lucky to be such a gifted speaker. Often, we wish it would come as natural to us. Wrong! Most skilled speakers don't emerge fully formed...they improve through practice and a desire to change.

This handout will help you prepare your presentation by offering some key questions you should consider and tips for helping you shine during your time in the spotlight.

## **KEY CONSIDERATIONS**

### **#1. Audience**

Who is your festival audience?

- Ask your local taste of science festival coordinator for details about your venue and the type of people who will attend. If you don't have specific information, assume your audience is similar to the local demographic (e.g., race/ethnicity, education level, socioeconomic status).

*How does audience impact your presentation?*

*Here are a few examples.*

Live in a sleepy retirement community? Be prepared for an older audience, who often like to ask lots of questions. For this audience, it's even more important to use a microphone and to speak more slowly since hearing impairment may be a challenge for many. What if you are giving your presentation in a college town? For any audience, consider the local issues. People always want to know why your topic matters to them, so help them connect.

Who is your audience? Be specific.

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What does your audience know, value, and care about?

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What information do you want to share that is specific to this audience?

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Why should this audience care?

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## #2. Message

What is your core message?

- Once you have determined your audience, it's time to think messaging. This is the one thing you want your audience to remember – and don't be insulted if they don't remember more! Establishing your core message is key to building your talk.

*Once you have your message, then everything in your talk should tie in to that message.*

Check for proper messaging among all of the content in your talk. For example, does an image support your message? If so, keep it. If not, throw it out. It might be great content, but if it's not important for your message, it's not necessary. The core message should be that one thing everyone remembers the next time you see them.

What is the single message you want your audience to remember?

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Now, it's time to build your supporting messages. Many studies show that our human brains can remember up to three supporting points. Select your three points that will best reinforce your message.

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### #3. Reaction

What is your call to action?

- You have a captive audience...so what do you want from them? If you are talking about water pollution, maybe you want them to be more careful about pouring household chemicals down the drain. If you study astronomy, maybe they should watch for an upcoming lunar eclipse.

*Not every talk will have a call to action, but it helps your audience remember your talk if they leave with the intent to do something.*

What's your call to action?

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### #4. Storytelling

*How can you make content personal for you?*

- For one of us (Alli), my research centers around hearing loss. I often tell a story about my grandmother, whose hearing declined later in life, often with hilarious misinterpretations. This story introduces humor and helps make my point real.

*Personal stories help audiences connect with your message and remember it.*

What are two brief stories you can share about your topic?

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## #5. Strong Opening

*Write and practice your opening remarks.*

- For the other one of us (Steve), my opening remarks are always scripted. I like to have at least the first 30-seconds of every one of my presentations well rehearsed. It cuts down the on nerves and guarantees quality content.

*Studies show that we have between 30 and 60 seconds to grab our audience's attention.*

Use your time wisely! There are many ways to open a talk - use one of your stories, play a short audio or video clip (if your venue allows - check with your coordinator first!), or ask a question. Try to avoid telling a joke...unless you're funny.

Write two different openings for your talk.

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## #6. Delivery

*What goes into good delivery?*

- This is a tough and personal concept. It takes practice, too. Even the best-crafted presentation can fall flat because of a monotone presenter who doesn't make eye contact. Seek out help from other skilled presenters (e.g., Toastmasters) or practice at a face-to-face workshop. Don't be afraid to rehearse for friends/family who will provide supportive, yet honest feedback.

*You need to practice to improve.*

Pick one aspect of delivery to work on in the days/weeks leading up to your presentation. Maybe it's reducing the number of times you utter "um" as a filler. Maybe you want to try and injecting more enthusiasm into your next speech. Find a trusted friend and practice this skill during a normal conversation. Set a timer for 5 minutes and consciously practice for those 5 minutes. The next day, set the timer for 10 minutes. Over time these skills become habits that will energize your presentations.

What's one skill you want to improve?

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## #7. Visual Aids

*Use visuals sparingly.*

- For taste of science talks, the focus is on you and your connection with the audience, not on complicated graphs or flying word art. Use slides for *aid*, not to make a complicated point.

*Ask your venue coordinator if you are allowed to have visual aids.*

Use your slides and videos for emotional impact, not to show data. Are you talking about rising sea level? Then show a picture of a town with flooded streets. Are you talking about bioengineering a prosthetic limb? Use a short video of someone using that limb.

What's one key image or video clip that will enhance your message?

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Now let's put it together. Some of these points can go in a different order (like telling the stories, or showing picture), but the basic structure is the same. Throughout your talk, remember to avoid jargon, smile, and try to have fun!

1. Select one of your openings
2. Clearly articulate your core message
3. Tell a story
4. Provide up to three supporting points
5. Show a picture or video
6. Close with a call to action

## **Presentation Checklist**

### **In the Beginning**

- ✓ Performed audience analysis
- ✓ Presentation has a core message
- ✓ All supporting material is relevant to this message
- ✓ Opening statement grabs audience attention
- ✓ Any data are presented as a cohesive story with no complicated graphs
- ✓ Conclusions are clear and vivid
- ✓ Visual aids enhance the presentation

### **Practice, practice, practice**

- ✓ Comfortable with the material
- ✓ Presentation is within allotted time
- ✓ Date, time, and location of presentation are confirmed
- ✓ Visual aids are used smoothly
- ✓ Speaking voice is natural and audible
- ✓ Body language is natural

### **The Big Day**

- ✓ Clothing is tucked in, zipped, and appropriate for the occasion
- ✓ Clothing can accommodate a lapel microphone if needed
- ✓ Visual aids (if used) are loaded on computer hard drive and archived on the cloud
- ✓ Back-up computer and projector are available
- ✓ Screen saver and sleep mode are off
- ✓ Cell phone is off

*You're ready-good luck!*

## **Remember**

Simple – *No jargon*  
Passionate – *Show enthusiasm*  
Relevant – *Make it relatable*  
Focused – *Clear, concise, and direct*