

SCIENCE COMMUNICATION COURSE PART I

Science and Science Communication

Often the term “**science**” is meant just for the natural sciences (biology, physics, etc.), mathematics, engineering, medicine, and so on. But this is not how this term is meant in this course: When our lecturer Kristin Raabe is using the term “science”, she includes basically everything you can study at a university – the social sciences, the humanities and the arts, for example. We need them all if we want to overcome the challenges that every society in Europe and worldwide is facing and sometimes collaborations between completely different areas of expertise are able to achieve a dialog with a lay audience that otherwise wouldn't be possible. Watch a great example of such a collaboration here:

<https://www.youtube.com/watch?v=W9CH13x6MAc&t=1s>

Also “**science sommunication**” can sometimes mean how to write a scientific article, how to quote literature correctly, and alike. In those cases, science communication refers to the communication within the scientific community. However, in this video tutorial science communication refers exclusively to the communication between researchers and a lay audience. Nevertheless, the communication tools you use in this course—the 4 Ws and H for example—can be applied to any type of communication.

The 4 Ws and How

Do you want to communicate with the public about your research by writing a blog article, making a YouTube video, recording a podcast, creating a presentation, giving an interview, or by any other means? Then you are probably asking yourself where you should begin. In order to write news stories, journalists begin by answering key questions (Who? What? Where? When? How? Why? Where from?). You can proceed similarly as a scientific communicator and use these key questions to analyze an upcoming communicative situation. However, *your* questions are somewhat different than those journalists use:

1. **Why** am I communicating?
2. **Who** do I want to address?
3. **What** am I communicating?
4. **Where** am I communicating?
5. **How** do I communicate?

Sometimes it's enough to just quickly go through all of the 5 questions. Oftentimes, however, it's worth the effort to take your time in answering each of the questions.

None of the 4 Ws and H is independent from the others. You should always think of all of them together.

The Goal – Why Am I Communicating?

Before every attempt to present your research to the public, you should be clear about what the goal of your communication is. Why are you communicating? What do you want to achieve with it? There are two basic types of goals.

The ego-goal: What will I achieve for myself with the communication?

The they-goal: What will I achieve amongst the target group?

Possible **ego-goals** are:

- I **enjoy** presenting my research to the general public
- It is good for my **reputation** and career to have outreach activities listed in my CV.
- I have a **responsibility** toward the public because they fund my research.

Possible **they-goals** are:

- I want to **inform** my target audience.
- I want to **entertain** my target audience.
- I want to **convince** my target audience of something.
- I want to **inspire** my target audience to change their behavior.

There are many ego- and they-goals that only pertain to very specific communication situations. But you should only choose one concrete ego- and one concrete they-goal. If you have too many goals, your communication will come unraveled and will lose its poignancy and your point will not be clear. It is always important to tailor your Ws to the respective ego- and they-goals because it is the only way you will be able to reach your goals.

TASK:

1. Think about your motivation to become an active science communicator. Write it down and talk about it with a colleague.
2. Choose a topic that you want to communicate with a non-expert audience. Be as concrete as possible! Don't say "I'm communicating about botany" – rather choose a

specific plant or talk about photosynthesis. Explain it to a friend or family member who does not know anything about this topic.

3. Answer the first W-Question “Why am I communicating?” and choose your communication goals (ego-goal and they-goal). Write it down and think about what you could do to reach your goals. Take notes.

Links and background material:

5 W and H – The Wikipedia article gives some interesting background information on this topic:

https://en.wikipedia.org/wiki/Five_Ws

Interview with Professor Robin Warren, a tuberculosis researcher from South Africa, about why science communication is important for him and his work.

<https://www.youtube.com/watch?v=aMKSFBXcZf8&t=21s>

Introduction into science communication in South Africa from Marina Joubert, a communication researcher from Stellenbosch University.

<https://www.youtube.com/watch?app=desktop&v=teMs8hqY-00>

Science communication resources in Europe: You might find interesting links to initiatives and guidelines in your home country on this website.

<https://scienceeurope.org/our-priorities/science-communication/talking-science/>

Science Communication resources from the European Research Council (ERC):

<https://erc.europa.eu/manage-your-project/communicate-your-research>

ERC Interview with Luke O’Neill, member of the ERC Scientific Council :

<https://www.youtube.com/watch?v=TnzmKI9ZjUs&list=PLtv6FnsXqnXCcgQQXiqWEPG2Ekqc0VSO4&index=4>