



“Researchers design, carry out, analyse and document research in a careful and well-considered manner.” (ECoC 2017, p. 5)

Description and background

This learning unit:

Introduces (future) researchers to research procedures and reliable research results

Builds the competency to discuss (questionable) research procedures and research results

Challenges (future) researchers to explain and justify complex research norms



An advocate for research integrity

Philippe Grandjean

Keywords

Responsible research conduct; reliable research results; questionable research practice; misconduct

This unit has been prepared for disciplinary learning groups.

Learning objectives

- 1** *Accept ambiguity: be open and unprejudiced*
- 2** *Explain and justify research procedures*
- 3** *Compare and prioritise different research procedures*
- 4** *Adjust research procedures, if necessary*

Learning stages

- 1** *Become familiar with the topic*
- 2** *Dive into an interesting challenge*
- 3** *Engage in role play*
- 4** *Explain and justify research rules*
- 5** *Evaluate different arguments, face dissent and achieve consensus*

“We must be neutral and represent the best of science to help make this a better world for all of us. We have to figure out how we can do that.”
(Philippe Grandjean, an advocate for research integrity)





1 Become familiar with the topic:

Homework (before the unit starts) or reading session

Read the paragraph on good research practice in “The European Code of Conduct for Research Integrity”

Discuss the meanings of any unknown words.

2 Dive into an interesting challenge:

To prepare the following exercise, please choose a situation in which some of you are unsure about how to proceed.

This challenge, regarding model procedures in the natural sciences, shows some uncertainty as to how best to proceed: *A new approach on modelling particle behaviour has been introduced to a researcher at a conference; however, it conflicts with the model he currently uses. Does he have to address this in his next paper and presentation or can he just let it go, as the model he uses is already well accepted within the community?*

Likewise, the following challenge demonstrates a questionable situation with vulnerable populations: *You are running a social media experiment and receive a request from a colleague: “Please let Paul attend your experiment as he needs the money.” Should you invite Paul to attend?*

In the field of research on self-driving cars, an expert questions the following: *Is it necessary to check the alarm system for distance control before every test run in the city?*

If one of these challenges is relevant to your discipline, you are welcome to use it. If not, please select an equivalent challenge from your research. Display it with one or two sentences on the chalkboard.

European Code
of Conduct for
Research Integrity



3 Engage in role play:

Go through the next steps in groups of four to six people:

Flesh out your challenge with details;

Imagine a conflict happens between two parties in this challenge, and perform it in a role play;

Describe the conflict and write it down (each group member needs a text version).

4 Explain and justify research rules:

Reflect on your own and answer the following questions:

Which rules do the parties explicitly or implicitly refer to in your conflict?

Did the parties explain rules in the role play?

If not, can you imagine which rules justify the actions of the two parties?

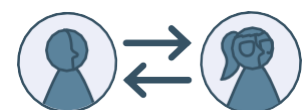
Which rules exclude or at least hinder each other? Write down the relevant rules.

Pick out one rule that you agree with, and a second one that you reject.

Describe why you agree with the first, and why you disagree with the second. If possible, refer to The European Code of Conduct for Research Integrity or another guideline on research procedures, e.g. from your institution or country.

5 Evaluate different arguments, face dissent and achieve consensus:

Discuss your rules in the plenum. Start by arguing in favour of specific research procedures and then turn to your denials.



In the discussion you can use the terms: **responsible research conduct; reliable research results; questionable research practice; misconduct.**