



"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 researchers to (questionable) research procedures and reliable research results

Builds the competency to discuss research procedures and research results

Challenges researchers to explain and justify research procedures



## Keywords

Research procedures; responsible research conduct; questionable research practice; misconduct

This unit has been prepared for interdisciplinary learning groups.

## **Learning objectives**

- Accept ambiguity: be open and unprejudiced
- 2 Explain and justify research procedures
- 3 Compare and prioritise different research procedures
- **Explain and justify your research procedures to other researchers**

## **Learning stages**

- 1 Become familiar with the topic
- **2** Connect to your own life
- 3 Engage in role play
- **Explain and justify research procedures**
- 5 Evaluate different arguments, face dissent and achieve consensus

"I go where evidence goes. Any pre-determined conclusion is against to what good research is about. It is against ethics."

(Philippe Grandjean, an advocate for research integrity)





# **Become familiar with the topic:**

Homework (before the unit starts) or reading session

Read the paragraph on research procedures in "The European Code of Conduct for Research Integrity". Discuss the meanings of any unknown words.

Bring a short exposé of your research project with you.

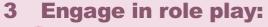
#### **Connect to your own life:**

To prepare a short pitch about your research project, choose three of the following questions and connect them to your project by describing your (planned) research procedures.

- How do you take into account the state-of-the-art and develop research ideas?
- How do you conduct research in a careful and well-considered manner?
- How do you use research funds in a proper and conscientious way?
- 4. How do you publish in an open, honest, transparent and accurate manner?
- 5. How do you manage data and safeguard confidential findings?
- 6. How do you report results in a way that is verifiable, reproducible and compatible with the standards of your discipline?

(cf. ECoC 2017, pp. 5-6)

Write yourself flashcards with bullet points for your 3-minute pitch.



Come together and greet each other. Prepare the room for an evaluation "speed dating" circle with as many chairs as people. Decide which side will stay seated and which will move on.

**Take your seats!** Those seated on the inner circle play experienced evaluators. Their task is to find out whether the research project being pitched to them is following good research practice. To do this, they should ask specific questions. Those seated on the outer circle pitch their research project and then try to answer the evaluation questions as clearly as possible.

Start the evaluation circle and change seats after 7 minutes. Repeat twice. Always thank the evaluator for the interview and say goodbye when you move on.

Change roles: Now those seated on the inside of the circle will pitch their research project and the others will ask precise questions to check whether the research project is following good research practice. Start the second evaluation circle and change seats every 7 minutes. Repeat twice.

Take a short break



On your own, consider what the evaluation speed dating introduced. Choose one of the six questions on research procedures from above for which the speed dating raised uncertainty for your research project. Take your time.

Explain and justify the corresponding research procedure you employ in your research project. Write your explanation and justification on a piece of paper. If possible, refer to codes or regulations. Entitle your text by quoting the question you are referencing.

#### **Evaluate different arguments, face dissent** 5 and achieve consensus:

As a class, stand up and spread around the room. Try to explain and justify your research procedure to as many former evaluators as possible! If you are approached as an evaluator, give feedback. You can use words like "responsible research conduct", "questionable research practice" and "misconduct". Always express your appreciation for the interview before you pass on to another person. If necessary, think about adjusting your research procedure.

Come together as a class and discuss the terms "responsible research conduct", "questionable research practice" and "misconduct".



