

"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

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

- Introduce the topic
- Motivate by connecting to your lives
- **3** Engage in role-play
 - Explain and justify research procedures
- **5** *Evaluate different arguments, face dissent and achieve consensus*



"Quote about Research Procedure"

This project receives funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 824488.



Authors: Julia Priess-Buchheit https://doi.org/10.5281/zenodo.3384731

%j

1

2

Introduce 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 any questions regarding the material, and the meanings of any unknown words.

Bring a short exposé of your research project with you.

Motivate by connecting to your lives:

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

- 1. How do you take into account the state-of-the-art and develop research ideas?
- 2. How do you do research in a careful and well-considered manner?
- 3. 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 respect the confidentiality of findings, as well as handle data?
- 6. How do you report results in a way that is compatible with the standards of the discipline, verifiable and reproducible?

(The steps are paraphrased from ECoC 2017, p. 5-6.)

Write yourselves flashcards with bulletpoints for your 3 minute pitch.

3 Engage in role play:

Come together, shake hands and greet each other. Prepare your 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 inside of the 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 use precise questioning. Those seated on the outside of the 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. Do this twice. Always shake hands when you leave your evaluator.

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

Take a short break

5

4 Explain and justify research procedures:

On your own, consider what the evaluation speed dating introduced. Choose one of the seven research procedure steps from above for which the speed dating raised uncertainty for your research project. Take your time.

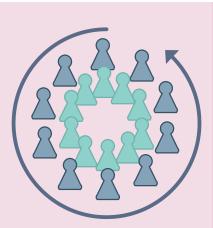
explanation and justification on a piece of paper. If possible, refer to codes or regulations. Title your text by quoting the step referenced above.

Explain and justify your corresponding research procedure from your research project. Write your

Evaluate different arguments, face dissent 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 shake hands when 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".





European Code