



Researchers follow their aims in a careful and well-considered manner!
(cf. ECoC 2017, p. 5)

Description and background

This learning unit:

Introduces students to research and to the processes required to produce reliable research results

Stresses the importance of reliable research results in our knowledge-based society

Challenges students to listen and speak up as well as to explain and be able to justify research norms



An advocate for research integrity

Tymon Zieliński

Keywords

Good research practice; reliable research results; research integrity; research procedures; research misconduct

This unit has been prepared for non-disciplinary learning groups.

Learning objectives

- 1** *Describe criteria for research procedures*
- 2** *Listen actively about how to do research*
- 3** *Argue in favour of well-considered research for the benefit of science and society*

Learning stages

- 1** *Become familiar with the topic*
- 2** *Dive into an interesting story*
- 3** *Engage in storytelling*
- 4** *Collect arguments for responsible research conduct*

“Scientific research is a critical building block of modern societies. So if societies are to properly grow and flourish, it is imperative that research be conducted with impeccable procedures and methods.”
(Tymon Zieliński, an advocate for research integrity)





1 Become familiar with the topic:

Homework (before the unit starts) or reading session

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

Take notes and discuss the meanings of any unknown words.

[European Code of Conduct for Research Integrity:](#)



2 Dive into an interesting story:

Review or look up the story from LONA Science Centre (video or text). In pairs, consider what kind of research fits best into the story: experiments, surveys, observation, literature reviews or others? Justify your answer.

3 Engage in storytelling:

What would you advise Prof. Weis to do? Discuss with the person sitting next to you.

Collect your advice to Prof. Weis on a chalk board or flip chart. Do your advices promote good research practice? If yes, why?

Now imagine the story continues as follows: “No!”, Prof. Weis thought, “the test results weren’t worth it. I won’t give up my career for that.” She quickly walked down the hall into her office, grabbed the top pile of paper and tore it up before she even thought about it. “That’s it. I’ve really done it.” Now, she would enter the results that her colleague wanted. “I want to stay at this institution.”, she told herself. That was her justification.

Build groups of three to four persons and continue the story, this time following basic values and norms of conduct that speak in favour of careful and well-considered research. Fill the story with sentences that argue in favour of good research procedures. Also include the advices to Prof. Weis you have previously collected.

Read some of your stories aloud.

What is research?

Research is a quest for knowledge that is conducted in a way that is systematic, calculated, considered, well planned, thought out in advance etc. Researchers...

- ...discover and design things along the way as they work;
- ...plan their research thoughtfully;
- ...gather information and analyse it to better understand it;
- ...publish their results and disseminate their knowledge.

Progress in society is often driven by research. Think of space travel, penicillin, de-escalation strategies, smart homes etc.

4 Collect arguments for responsible research conduct:

Come together in pairs and ask each other the following questions:

1. What could happen if the falsified results are published?
2. What might happen if Prof. Weis publishes the real results?
3. Do you think it is important for society that Prof. Weis publishes honest research results? Explain why (or why not).
4. How can Prof. Weis argue that research should be taken seriously?

Collect the answers on a chalk board or flipchart.

Compare the story in which Prof. Weis destroys the original test results and plans to enter falsified results with the ones you wrote.

Which of those stories stands for careful and well-considered research, and why?

What does it take for researchers to conduct research in a careful and well-considered way?

