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Path 2 Integrity

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Good research is based on honesty!
(cf. ECoC 2017, p. 4)

Description and background

This learning unit:

- *Introduces students to research and to conducting research reliably*

- *Emphasises how important responsible conduct of research is for society*

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

- *Challenges students to demand compliance in research principles*

An advocate for research integrity

Alexander Gerber

Please ensure to obtain informed parental consent and informed assent from participants if required in your country or in your institution.

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

Keywords

Good research practice; reliable research results; research integrity; honesty; reliability; accountability; respect in research

Learning objectives

1 **Describe the values of a researcher**

2 **Outline reasons for conducting responsible research**

3 **Realise consequences of research**

4 **Argue in favour of the importance of reliable research results for both research and society**

Learning stages

1 **Become familiar with the topic**

2 **Collect your experience**

3 **Dive into an interesting story**

4 **Connect the example to your life**

5 **Engage in storytelling**

6 **Reflect on reasons for reliable research in society**

"Science has received a mandate from society to produce knowledge and thus address the grand challenges of our time."
(Alexander Gerber, an advocate for research integrity)

1 Become familiar with the topic:

Homework (before the unit starts) or reading session

Fill out the survey to evaluate the learning units.

Use this link: https://path2integrity.eu/limesurvey/index.php/714871?newtest=Y&lang=en

A two-digit group code is required to link relevant data in an anonymised manner. Before you begin, define this code together with the group and use it in the questionnaire. Keep a note of the code for later use. Note any interesting or challenging cases as well as any unknown words and bring these notes to your class.

2 Collect your experience:

As a class, discuss how sure and unsure you were in your survey answers. In what way(s) do you think the cases from the survey can be of importance to you? After this questionnaire, what is your first idea of good research? Have a brainstorming session together.

3 Dive into an interesting story:

Learn more about good research practice and look up the story from LONA Science Centre (video or text). What happened in this story? What went wrong?

4 Connect the example to your life:

Take a minute for yourselves to think about someone in your environment who used research results to argue in favour of something. Write down a description of that person and what they argued for.

> **Research principles are:**
>
> "Reliability in ensuring the quality of research, reflected in the design, the methodology, the analysis and the use of resources.
>
> Honesty in developing, undertaking, reviewing, reporting and communicating research in a transparent, fair, full and unbiased way.
>
> Respect for colleagues, research participants, society, ecosystems, cultural heritage and the environment.
>
> Accountability for the research from idea to publication, for its management and organisation, for training, supervision and mentoring, and for its wider impacts." (ECoC 2017, p. 4)

5 Engage in storytelling:

Introduce your character. In pairs, introduce your character to your partner. In favour of what did your characters argue and how did they use research results to strengthen their arguments? Explain whether this person is a researcher or whether they work in some other area of society.

Imagine the worst. In a co-creative process with your partner, choose one of your characters and imagine a story in which the research results turn out to be fraudulent because the researcher who produced them had cheated. The story should include both the cheating researcher and your character. Include a person and/or a part of society that gets hurt due to the fraudulent results. Write down your storyline in bullet points.

Turn it to the best. Now rewrite your story! Together, imagine that another researcher has stopped the cheating. Describe in detail what values this reliable researcher has and how your character is now able to use these reliable research results for their argument. Write down a short story in which a person and/or a group is able to advance because of the reliable results and the argument in favour of it.

Read some of these stories aloud!

6 Reflect on reasons for reliable research in society:

As a class, collect reasons to conduct reliable research on a chalk board or flip chart. Discuss why it is important that researchers follow rules such as that good research is based on honesty.

Mark four significant reasons from your collection as to why researchers need to follow these principles. Write them in your notebook.