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Research Integrity Training For Early Career Researchers

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Key general issues

- Integrity, ethics and public responsibility are the **fundamental principles of the EHEA and ERA**
- **Integrity = quality:** “inherent dimension[s] of excellent science and quality care in research” (EC, 2019)
- Ethical principles, moral values and **the pursuit of truth** constitute the **mission of the university, its vital issue** (LERU, 2020)
- **Fundamental for credibility and trust in society, for academic freedom and communication** *based on accepted standards of academic ethics and integrity*” (EUA, Universities without walls, 2021).
- Research ethics and integrity are **strategic priorities for doctoral schools** and need financial support to be addressed properly (EUA-CDE, 2019).
- **Doctoral programmes** have been and are used for **developing both world-class and ethical researchers** (Anne Lee, 2013)

2.5. Career development

…. ***Offering training in*** transferable skills, including ***understanding the ethics of research, is central, and should be a priority for doctoral schools and programmes.***

Salzburg Principles II, 2010

Common understanding of RI across Europe

- Definitions and principles
- Good research practices
- Violations: misconduct and unacceptable practices
- Dealing with the violations

https://allea.org/code-of-conduct/

4 FUNDAMENTAL PRINCIPLES OF RESEARCH INTEGRITY

The European Code of Conduct for Research Integrity, 2017

Reliability

in ensuring the quality of research, reflected in the design, the methodology, the analysis, and the use of resources.

Respect

for colleagues, research participants, society, ecosystems, cultural heritage, and the environment.

Good research practices are based on fundamental principles of research integrity. They guide researchers in their work as well as in their engagement with the practical, ethical and intellectual challenges inherent in research.

Honesty

in developing, undertaking, reviewing, reporting, and communicating research in a transparent, fair, full, and unbiased way..

Accountability

for research, from idea to publication, for its management and organisation, for training, supervision, and mentoring, and for its wider impact.

https://allea.org/code-of-conduct/

Good practices in research - ECoC

Research Environment

Research Procedures

Data practices and management

Publication and dissemination

Training, supervision and mentoring

Safeguards

Collaborative working

Reviewing, evaluating and editing

https://allea.org/code-of-conduct/

Good practices in training, supervision and mentoring (2.2)

Research institutions and organisations **develop appropriate and adequate training in ethics and research integrity** and ensure that all concerned are made aware of the relevant codes and regulations.

Researchers across the entire career path, from junior to the most senior level, **undertake training in ethics and research integrity.**

Senior researchers, research leaders and supervisors **mentor their team members and offer specific guidance and training** to properly develop, design and structure their research activity **and to foster a culture of research integrity.**

https://allea.org/code-of-conduct/

Book chapter

Chapter

Research integrity training for early career researchers

By Margaux Kersschot, Iryna Degtyarova, Peter Novitzky

Book [The Future of Doctoral Research]

Edition	1st Edition
First Published	2021
Imprint	Routledge

Part V: ETHICS AND ACCOUNTABILITY

Study description

- Main focus: what constitutes current integrity training for ECRs
- Research questions: value-based or norm-based approaches?
  How the RI training look like in different academic traditions?
- Case-study: Poland and the Netherlands (as for 2019, beg. 2020)
- Method & data: semi-structured interviews with experts on RI training,
  analysis of the national regulations
- Conclusion: good practices and recommendations

Starting point - two main approaches to training and practicing RI

A value-based approach

- RI as a virtue that must be kindled
- ‘positive approach’ guidelines emphasizing the principles of research integrity

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Norms-based approach

- adherence to a clear set of norms/rules
- focus on enforcement of those rules
- negative approach: focussing on defining misconduct, i.e. breaches of integrity (FFP)

e.g. work by Godecharle et al, Horbach & Halfmann (2017)

Background for study

- Have a look on 2 different EU countries: Western Europe vs Central and Eastern Europe
- Generally intolerant to corruption (NL – 8, PL – 45 by CPI TI 2020)
- Different status of doctoral candidates and different organisation of training
- Each country has a strong focus on ethics in science
  - ***NL*** leaders on RI and research ethics projects (PRINTEGER, VIRTUE and ENTIRE, Netherlands Research Integrity Network – NRIN, etc.) + well-developed framework for DCs and RI training
  - ***Poland*** – much attention to traditional university values, academic ethos, legal regulations for scientific misconduct, new Law on Higher Education and Science (2018) consolidated and strengthened regulations regarding ethics and changed the system of doctoral training

Main features of RI training

The Netherlands

- no legally defined requirement for RI training but each institution require the completion of (brief) RI training during doctoral training in mixed groups
- common understanding of RI
- trainers - dedicated personnel with interests or specialisation in ethics and RI.
- training based on the Code
- high relevance of the ECoC
- named as RI
- learning outcomes are focused mostly on case discussions, and raising awareness
- More practical
- Values+norms

Poland

- formal requirement in the NQF for level 8 (learning outcomes)
- provided at doctoral level (ethics on BA/MA) in the disciplinary groups
- confusion with the terms – challenge for non-English systems - more perceived as ethics of scientific research (integrity is less used)
- trainers – mostly ethicists/philosophers
- training is not based on the Code but general ethics
- lack of ECoC context
- named differently (ethics, researchers' workshop, etc.)
- More theoretical
- More values focus in training but in practice norms are required

Definition of RI in NL

Research Integrity is defined in the new Code of Conduct (NCCSP 2018, p. 7) :

If scientific and scholarly research is to perform [its] role properly, research integrity is essential. This holds true for all disciplines. Research in the sciences and the humanities derives its status from the fact that it is a process governed by standards. ***That normativity is partly methodological and partly ethical in nature, and can be expressed in terms of a number of guiding principles: honesty, scrupulousness, transparency, independence and responsibility****. Researchers who are not guided by these principles risk harming both the quality and the trustworthiness of research.*

Understanding of RI in Poland

Not a single concept: philosophical, cultural, methodological approaches

Include proper research methods, research communication and publishing + legal requirements

*"RI is more about **ethical norms of using research methods"** (PL1)*

*"[RI is a] **set of good practices and code of conduct for reliable way of conducting research** and organization of processes in a given unit and striving for excellence in these areas, including quality management issues and quality control systems, as well as broadly called **quality culture"** (PL3)*

*"**Research ethics is a general ethics applied to scientific research**, **it is a philosophical sub-discipline** which requires deeper insight into assumptions of ethics and comparison of different systems of moral norms" (PL4)*

*"I think all understand it in two different ways. One is research integrity and **regards the methodology** ... you do proper research, you don't tune data, you don't fake data, you meet all the proper and modern standards required by empirical research … The other line is the **ethical dilemma that every researcher has to face on a daily basis**. Whatever you study, you can't harm the subject of investigation. **You have to know what you can do, but also you know what the boundaries are**" (PL5)*

Examples of RI training focus in the Netherlands and Poland

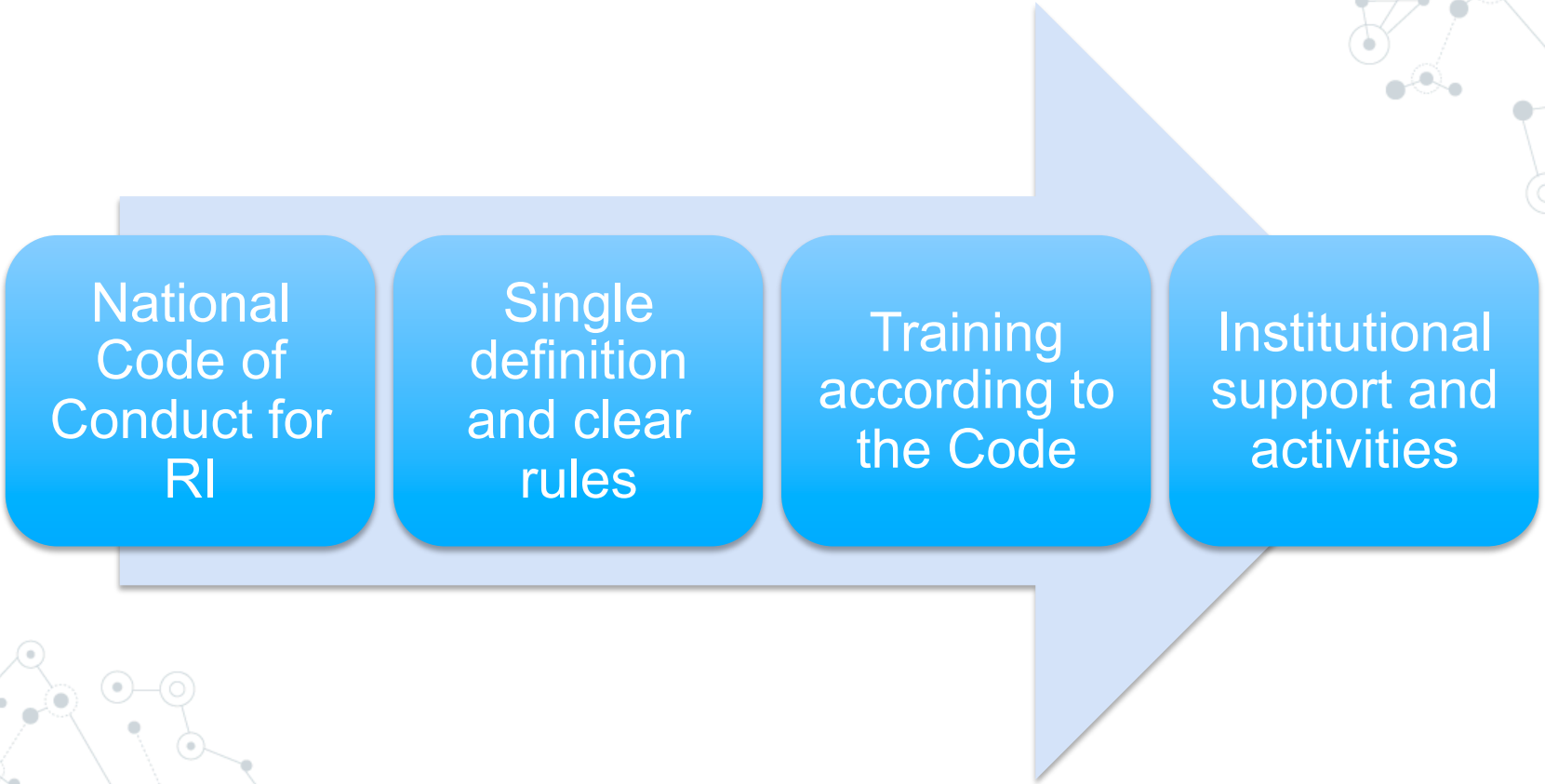
The Netherlands

"Mostly awareness raising, know[ing] who to contact, and how to apply principles and reason about these principles in such cases. Overall, one has to learn how to apply the norms, students are encouraged to bring their cases, some cases are very specific with their issues (e.g. living labs v closed labs)." (NL4)

Poland

"I think the university is gradually becoming aware that it is important. It used to be taken very softly. Now the ethical issues are gaining importance because we have more and more issues to deal with. But I think it hasn't been institutionalized, it's really up to supervisors or the head of the school. In different schools they have different programs, for some it's a part of the curriculum for others not, for some it is compulsory, for others optional" (PL5)

Good practices from the Netherlands



Examples from Poland - goal of the course

- “the main goal of instruction on research ethics/integrity is to answer the question “**How to do the research job honestly”** (PL4)
- RI themes are present, such as in **courses on the philosophy of science, in interdisciplinary courses and during the development of soft skills as part of general academic skills**
  - *“The course Effective Scientific Writing also includes some elements of publication ethics. … Also, in presentation and promotion or visibility of researchers, elements of research integrity are discussed within the courses of science communication.... This topic exists in different courses”)*
- **New forms and tools:** podcasts, videos, cases, ethical dilemmas but based on the theory of ethics

Examples of courses in Poland

Ethics	Authors' rights and intellectual property	Ethics as a part of a broader course on general aspects of research/or with methodology
Ethics	Authors' rights	Legal foundations of science
Ethics in Science	Ethics and intellectual property	Methodological and ethical aspects of technoscientific research
Ethical aspects of research activity	Researcher's workshop: Intellectual property protection	Economic, legal and ethical conditions of the research activity
Ethical Aspects of Research and Engineering	Bases for patenting and implementation (classes provided by the patent officer)	Fundamentals of law and ethics in research (module on methodology of research)
Legal and ethical aspects of research activity	Scientific data presentation and copyright	Workshops on organizing and financing research, including ethical and legal elements
History of scientific thinking	Elements of the copyright and patent rights	Research skills: Module 1.1 Ethics in research and scientific work
Philosophy of Science	The authors' rights issues	Academic writing and publication strategies
The course on pedagogy and ethics		Preparation and publishing of the scientific publications
		Social role of researcher and University
Bioethics		Dissemination of the research results
Ethical aspects of conducting biomedical research on humans and animals		Ethics in publishing and responsibility in research activity (Etyka publikowania i odpowiedzialność w działalności naukowej)

Conclusions

- **A national Code of Conduct provides a robust guidance** for enhancing and maintaining RI, resulting from the consensus amongst the institutions (NL).
- **A value-based and norm-based approaches to be combined**! NL – value based with a strong emphasis on practical cases and dilemmas. DCs are trained to recognize challenging ethical issues incorporating ‘grey zone’ domains. But at the same time – practical approach (participants are provided practical information about who to contact for advice and finding solutions)
- **RI is a part of transferable skills training, but separate course needed**: in NL separate courses on RI exist, as it is perceived a separate concept from research ethics. In Poland, RI is understood as ethics. Parts of RI are implemented in other courses, such as ethics, philosophy of science, research methods, copyright and patents.
- **Dutch RI courses seem to adopt a value-based approach**, with generic standards delineated in the guideline for RI in the Code of Conduct. **The picture is more complex in Poland**, where it remains unclear whether a value-based or norm-based approach prevails. There are legal requirements for doctoral training that extend to defining requirements of an ethical nature.
- **Tendency to focus RI training on practical dilemmas and cases** that doctoral researchers can easily relate to is prevalent in both countries. This interactive format sparks discussion and assists in breaking taboos.

Recommendations = good practices

RI training should commence considerably earlier

RI training should be an obligatory part of any doctoral training , also as a part of transferable skills

RI training to mixed but small groups

A well-established training system revolves around a unified Code of Conduct

Potential of mobility for cultivating RI culture

Combine and balance legal and ethical (value-based) interpretations, dilemma and problem-based & practical approaches, which are essential for practicing high standards of RI in research

Universities should raise awareness of (new) trends in RI among senior academics and also provide RI training for senior staff members, especially for supervisors of DCs.

Bottom-up approaches and self-regulation in RI standards setting

Effective RI infrastructure (e.g. RI officers, offices, persons of trust)

The issues of ethos, and the mission of both the scientist and the academic profession are worthy of wide and honest public discussion.

P.S.

COVID-19 context – high importance of integrity and trust in science

Situation in RI discourse is very dynamic

In Poland – new version of the Code was published in June 2020

In the Netherlands – current changes to the training and to the Code

New urgent topics aside RI – data integrity/FAIR and data management, AI and ethics, RI and research culture

Research Integrity in Eurodoc

- WG established in 2018
- RI focus in all policies and documents discussed and contributed by Eurodoc
- Raising awareness on the European Code of Conduct for Research Integrity and good practices
- Contribution to the RI/RRI EU projects
- Positive focus – good practices
- Thematic studies and publications

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Thank you for listening!

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