

PRACTICING INTEGRITY

CENTRE FOR
HIGHER
EDUCATION
FUTURES

Bringing up Early Career Researchers: Research Integrity Teaching and the Formation of Scientific Norms

Laura Louise Sarauw

with Susan Wright, Lise Degn & Jakob Ørberg

Centre for Higher Education Futures, DPU, Aarhus University, & Rachel Douglas-Jones,
ITU.

'Locating research integrity' workshop,
University of Copenhagen, August 30 2018



AARHUS
UNIVERSITET

DPU - DANMARKS INSTITUT FOR PÆDAGOGIK OG UDDANNELSE

Doctoral Integrity Training

In the Overarching Project

Project title: 'Practicing integrity' (2017-19) is funded by the Danish Ministry of Education and Research (Agency for Research and Innovation). Grant ID: 6183-00003B.

Research Questions

What are the demands and norms of codes of conduct for research integrity and (how) are they ingrained in academic practice in universities and university colleges?

- Organisationally (by leaders, managers, supervisors)
- **Institutionally (in the education of early career researchers)**
- Individually (in navigating day-to-day incentives and pressures of academic research)

This Presentation

Will show the heterogeneity of interests revolving around integrity training for PhD students -with a particular emphasis on the cultural and disciplinary differences embedded in the institutional level.

- International and national narratives revolving around the need for doctoral integrity training.
- **Narratives revolving around integrity training for PhD fellows at four different faculties at a larger Danish university in the fields of Science, Health, Social Sciences, and Humanities.**
- **Close-up examples from the four faculty-based courses.**
- Discussion of emerging tendencies and trends .

Theoretical Framework

Aims to highlight heterogeneity and depict processes of contestation and institutional sense making, tied to the increased concern with integrity training.

- Inspired by constructivist theories (Shore and Wright 1999; Bacchi 2009).
- How particular problem narratives are used to legitimize particular solutions, e.g. course designs, curriculum and pedagogies of doctoral integrity training.
- **In this study, we show how problem narratives are established across locations (international, national and local) and how they are used to legitimize particular designs for the integrity training.**
- Main site: Four different faculties at a larger Danish university.
- **Raises questions of diversification and individualization of responsibility.**

Empirical Record

A comparative ethnography of four ethics/integrity PhD courses in the fields of Science, Health, Social Sciences, and Humanities, focusing on:

What problems are the courses expected to solve?

- **Interviews, course material, local policies and meta-presentations**

And how is this reflected in the course curricula and pedagogies?

- **Documents studies and course observations**

Problem Narratives Morph

International, national and institutional narratives about the need for integrity training for PhD fellows

- Are diverse and essentially political.
- Morph as they move from the international to local.
 - International levels concern with overarching issues such as globalization and open access.
 - National and local levels are more concerned with the role and responsibility of the institution and individual.
- Local levels imply disciplinary discussions related to 'science virtue' and the 'rotten system' vs. 'the rotten individual' that is not present elsewhere.

6th World Conference on Research Integrity 2019



Conference Theme

New Challenges for Research Integrity

There is great change in the way that research is being conducted. International collaborations are now arguably the norm, 'open' research is driving particular behaviours and is more frequently an expectation from funders of research, and a generation of new researchers who grew up with the power of the internet and big data is entering the research workforce. As a result, the way we influence or foster research cultures towards responsible conduct and research integrity is also changing.

There has also never been more research into research integrity and the responsible conduct of research. Applying knowledge and research findings from other fields is providing new insights into the motivations behind research misconduct, the nature of bias and the apparent reproducibility of research findings, and how we might be able to drive more responsible research through mechanisms like education and training, or clear and effective policy.

The 6th World Conference on Research Integrity in Hong Kong, which is co-organized by Melbourne, will explore the application of these new research findings to develop new and better solutions to address ***New Challenges for Research Integrity***.

The European Code for Research Integrity 2017

2.2 Training, Supervision and Mentoring

- Research institutions and organisations ensure that researchers receive rigorous training in research design, methodology and analysis.
- Research institutions and organisations develop appropriate and adequate training in ethics and research integrity to 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.

Danish Code for Research Integrity 2014

III. Research integrity teaching, training, and supervision

The Danish Code of Conduct on Research Integrity outlines a basic platform for research integrity teaching, training and supervision at the institutional level.

Fostering a culture of research integrity is a key element for ensuring high quality and integrity in research. In this context, teaching, training, and supervision are essential for developing and sustaining a culture of research integrity and for establishing and sustaining basic knowledge on research integrity among those involved in research.

It is important that institutions take responsibility for ensuring that researchers under their auspices receive relevant teaching, training, and supervision in the principles of research integrity and responsible conduct of research. The main purpose is to incorporate the elements of research integrity into the day-to-day work of researchers, and to promote a mind-set that supports research integrity.

A fundamental part of sustaining and developing a culture of research integrity is the role of supervisors and senior researchers acting as mentors and role models. Thus, it is important that supervisors and senior researchers engage in research integrity teaching, training, and supervision.

Danish Ministry of Higher Education and Science, 2014

The University's Strategy

3. Research integrity teaching, training and supervision

It is fundamentally the university's and the researchers' joint responsibility to stimulate and develop critical scientific and scholarly discussion in the research environments – a discussion that is vital for preserving and developing the fundamental principles/values, ensuring responsible conduct of research and preventing research misconduct. This culture must be supplemented by training in responsible conduct of research at all levels (Bachelor's, Master's, PhD, postdoc/assistant professor and tenured staff). The purpose of research integrity teaching at Aarhus University is:

- To strengthen a responsible research culture and a responsible research environment at Aarhus University.
- To ensure that Aarhus University complies with national as well as international rules for responsible conduct of research.
- To prevent scientific dishonesty and other breaches of responsible conduct of research.

Training must be organised in accordance with the best national and international recommendations and contain the following elements:

NN university's policy for responsible conduct of research, 2015

Different Problem Narratives

Problem narratives	World Conference	European Code	Danish Code	Aarhus University
Need to foster a culture of integrity (since there is no such culture?)		x	X	X (strengthen existing culture)
Globalization and open access	x			
Pressures from funders	x			X
A new generation of researchers (internet and big data)	x			
Institutions must take responsibility		x	X	X
Codes and regulations are not commonly known and this knowledge is not sustained		x	X	X
Knowledge about the reasons behind misconduct is not used	x			
Leaders and senior researchers are not taking responsibility (e.g. for mentoring)		x	X	X
Integrity should be a practical day-to-day concern			X	X
A mindset that supports research integrity needs to be promoted			X	x

The Faculty Courses

- In the university's policy, focus is on training as a key to strengthening **“responsible research culture”** as a **“joint responsibility”**.
- Also the policy is intended to provide a framework for all main faculties: **“to embrace all fields of inquiry and for everyone at the university to have a common understanding of what constitutes responsible conduct of research, including what is defined as scientific dishonesty”** (NN university's policy).
- Discussed at both university and faculty level as at the same time highly demanding and highly necessary.
- **Course designs, problem narratives and institutional conditions, however, vary significantly between the four faculties.**

The Faculty Courses

	Health	Science and Technology	Arts	Business and Social Sciences
Title	Responsible Conduct of Research	Responsible Conduct of Research	Research Ethics and Research Integrity	RCR for PhD students
Duration	2 days + 8-hour online pre-course	3 hours are mandatory - 2 days voluntarily	2 days + 1 day workshop with paper	2 day workshop
Capacity	25	20	25	30
Mandatory since	April 2016	N/A	Spring 2017	Spring 2017
Previous tradition	Continuously developed since 2014	Continuously developed since approx. 2012 – earlier “Good Scientific Practice”	Non-mandatory Research Ethics course Elements of ethics training in other courses	In development – first course conducted in March 2017
Format	Lectures, active participation and casework	Active participation and casework	Lectures and active participation – bringing issues from own practice	Active participation and casework
ECTS	3.1	1 + 1 extra ECTS awarded for an additional assignment	2 days 1.5 3 days 2.5	No
Epigeum	Mandatory to pass	Optional. Can be completed as additional assignment	No	No
Problem narratives	All researchers are (unconscious) small cheaters – creating reflexivity about this is pedagogically demanding	Responsibility for “good science” must be enhanced	The understanding of “integrity” as rule following is a challenge to diversity and creating a supportive community around “ethics” reflexivity relevant for all subfields	The scientific system is “broken” and young researchers need to navigate this

Summary

- **No national/international/national local consensus about the purpose of PhD integrity training – and no unified curriculum.**
- Problem narratives and understandings vary depending on who you ask.
- There is not a single answer to where the responsibility for securing integrity located (cf. Sarah Rachel Davies, 2018) - is it the institution, the system or the individual?
- Courses developed simultaneously with the Danish Code, incorporating local agendas + diverse materials, corresponding to diverse problem narratives and expectations of what problems to solve.
- Processes of standardization and diversification – **but some problem narratives and solutions prevail, e.g. promoting reflexivity (the “mindset”) and responsible conduct of the individual on an every day level.**

Discussion

- Discussions of integrity training are intertwined in discussions of institutional policies, and the courses are sites for practicing science politics - imposing or transforming standards and ideas about good research.
- Scandal is central in policy and education. **Yet, scandal is also contested as the main problem or challenge for research integrity on a local level.**
- Cross faculty focus: **reflexivity and engaging with “minor” everyday dilemmas, etc.** – space for questioning or affirming conduct, which allows appointing institutional and disciplinary norms.
- **A shared ideal of the reflexive researcher the researcher of tomorrow.**
 - Is this a new understanding of what is good research practice?
 - Does it individualize questions of integrity? And if so
 - Is reflexivity “enough” as a solution to the challenges of research integrity in various disciplines? I.e.. Does it respond to the overarching aim to foster a “culture of integrity” in the local research communities”?

Thank you for your attention –
time for questions!

Papers in progress/published

- Douglas-Jones, R and S. Wright. (2017). 'Mapping the Integrity Landscape: Organisations, Policies, Concepts'. CHEF Working Paper 27 (33 pages), available at http://edu.au.dk/fileadmin/edu/Forskning/Working_papers/Working_Paper_27_Mapping_the_Integrity_Landscape.pdf
- Degn, L. (2016). 'Academic sense making and behavioral responses – exploring how academics perceive and respond to identity threats in times of turmoil', *Studies in Higher Education* 1-17. <http://dx.doi.org/10.1080/03075079.2016.1168796>
- Degn, L. (2017). Translating 'research integrity' into policy and practice-HEIs leaders as political and academic mediators. CHEF Working Paper 26 (17 pages), available at: http://edu.au.dk/fileadmin/edu/Forskning/Working_papers/Working_Paper_26_Translating_research_integrity.pdf
- Sarauw, L, L. Degn and J.W. Ørberg (2018). 'The brave new researchers in doctoral integrity training' ECER, September 2018. Abstract published. Full paper in progress.
- Sarauw, L. L. (forthcoming, 2018). 'Teaching grey-zone research. The reversed causalities of doctoral integrity training'. Full paper in progress.