PRACTICING INTEGRITY

CENTRE FOR HIGHER EDUCATION FUTURES

The Brave New Researcher of Doctoral Integrity Training

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

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Doctoral Integrity Training

In the Overarching Project

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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)

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 Shore and Wright 1999; Bacchi 2009 (and other constructivist theories) on **policy narratives**, the study accentuates how:

- **Diverse problem narratives are established across locations** (internationally, nationally and locally).
- **Certain narratives are used to legitimize particular designs for the local integrity training.**

This Presentation

Will show the heterogeneity of interests revolving around integrity training for PhD students

- International and national policy narratives revolving around the need for doctoral integrity training.
- **Narratives used to legitimize integrity training and course designs at four different faculties at a larger Danish university in the fields of Science, Health, Social Sciences, and Humanities.**
- Discussion of 'policy migration' – tendencies towards standardization vs. institutional diversification and individualization of responsibility.

Empirical Record

- International and national policy studies

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

  - **Local policies and meta- presentations and interviews with course leaders and teachers:** What problems are the courses expected to solve?

  - **Course materials and course observations:** How is this reflected in the course curricula and pedagogies?

Problem Narratives Morph!

The earth is not flattening on all parameters - 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 the local.
- Responsibility is pushed towards the individual researcher:
  - 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 discussions e.g. ‘science virtue’ and the ‘rotten system’ vs. ‘the rotten individual’ that are not present in the overarching policies.

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***.

6th World Conference on Research Integrity 2019: http://www.wcri2019.org/index/programme/conference-theme

The European Code for Research Integrity (2014) 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.

The European Code of Conduct for Research Integrity, ALLEA, 2017

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: ufm.dk/publikationer

The University's Strategy 2015

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 [redacted] is:

- To strengthen a responsible research culture and a responsible research environment [redacted]
- To ensure that [redacted] 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:

Comparing the Problem Narratives

Problem narratives	World Conference	European Code	Danish Code	The University
Need to foster a culture of integrity (since there is no such culture?)		x	X	X
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

The university policy: Integrity training is a key to strengthening "**responsible research culture**", and this is a **"joint responsibility**" of the university and the researchers.

- Is intended to provide a framework for al 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"** (University 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 –and creating individual reflexivity about this is pedagogically demanding	There are no real "problems" with integrity, so responsibility for "good science" must be enhanced	"Integrity" as standards for conduct challenges disciplinary diversity and "ethics" as a reflexive practice relevant in all subfields	The scientific system is "broken" and young researchers need to navigate this

Narratives and Solution(s)

	Health	Science and Technology	Arts	Business and Social Sciences
Problem narratives	**THE INDIVIDUAL** All researchers are (unconscious) small cheaters –and creating individual reflexivity about this is pedagogically demanding.	**NO ONE** There are no real "problems" with integrity, so responsibility for "good science" must be enhanced	**RULE COMPLIANCE** "Integrity" as standards for conduct challenges disciplinary diversity and "ethics" as a reflexive practice relevant in all subfields.	**THE STRUCTURE** The scientific system is "broken" and young researchers need to navigate this.
Course specific pedagogies	**Anonymous polls on participants' cheating habits. Casework on exemplary cases and self-experienced dilemmas. Continuous group discussions.**	**Participants examine their on their own projects in detail to how they can "improve" the basic principles [honesty, trustworthiness, open-ness and transparency].**	**Creating a "safe space" where the participants can reflect upon dilemmas in own and others' projects.**	**Lectures focus on dangers and pitfalls related to the "broken system" or "rotten culture". Participants are invited to discuss relevant examples.**
Solution given by course designs	Enhancing individual reflexivity through active participation and discussion.	Enhancing individual reflexivity through active participation and discussion.	Enhancing individual reflexivity through active participation and discussion.	Enhancing individual reflexivity through active participation and discussion.

Health
"We are all unconscious cheaters"

Problem: All researchers are unconscious cheaters - and the university's strategy concern with reputation ("tick-box-strategy") is insufficient so solve the problem.

Solution: Cultivation of "true" moral and ethical awareness among the PhD fellows - and this is pedagogically demanding.

- Course leader: "This is not a Penkowa course [referring to the famous Danish scandal]. We assume that the PhD fellows are decent and honest people, who want to do things right. But they might do something by default. We offer the PhDs an opportunity to stop and reflect upon the dilemmas and pressures they meet in their daily lives." (Interview, June 2017)

- Observations: Pedagogies used to enhance awareness and reflection: casework and anonymous pools, in which the participants are asked if they have lied within the last three month before the course. Pedagogies of internalizing awareness of unconscious everyday breaches?

Science and Technology
Responsibility for ”good science”

Problem: Good research practices must be highlighted and cultivated.

Solution: Encouraging the participants to examine their own research process in detail and “improve” e.g. transparency in every research step.

- Field notes from observation: ”There is a strong focus on “the good research” and this is the first time that misconduct is mentioned. After 2 hours.” (RCR-course Science and Technology, 2018)

- Course teacher about the course pedagogy: “The idea of this course also to break up the research process in smaller processes and seeing how we can improve the basic principles [honesty, trustworthiness, openness and transparency] in each one.” (ibid.).

Arts
”The Scientific Project is Essentially Ethical”

Problem: The omnipresent understanding of integrity as rule-following or the avoidance of malpractice is a problem. (The course has kept ethics in its title as an antidote).

Solution: Reinstating ethical reflexivity as core to scientific praxis AND as foundational for the scientific community and its disciplines.

- ”While this is not a Penkowa-course [referring to the famous Danish scandal], we would not have had the course if not for that case.” (Philosophy professor at the Research Ethics and Research Integrity course)

- “When we feel that something is not ethically problematic, that is when the alarms should go off!” (Anthropology professor at the Research Ethics and Research Integrity course)

Social Science and Business
Navigating the ”broken system”

Problem: The scientific system is “broken” – students are entering a corrupted and flawed system of science and must learn to navigate.

Solution: A course that focuses on dangers and pitfalls related to the “broken system” or “rotten culture” and aims at creating reflexive awareness among the participants through examples and discussions.

- Course leader in a very grave and serious tune: “Its serious for you, your research and your career!” (…)

- The goal and aim of the course is that “we can have discussions” and ”you will be more reflexive”. He emphasizes that “you will run into these things. Either because you see them or because they appear in your own research”. (Observations, 2018).

Summary

Discussions of integrity training are intertwined in discussions of local policies - **courses are sites for practicing science politics** - imposing and/or transforming standards and ideas about good research.

- **No national/international/national local consensus about the purpose of PhD integrity training – and no unified curriculum**. Courses developed simultaneously with the Danish Code, incorporating local agendas + diverse materials, corresponding to diverse problem narratives and expectations of what problems to solve.

- **Problem narratives vary** depending on who you ask. There is no single answer to where the responsibility for securing integrity located - **is it the institution, the system or the individual?**

Discussion

Processes of both standardization and diversification **– but one particular solution prevail.**

- Regardless the diverse local problem narratives (e.g. "the small cheater" vs. "the good practices" vs. "the broken culture"), there is a cross-faculty focus on **individual reflexivity and engaging with "minor" everyday dilemmas, etc. –** space for questioning or affirming conduct, while appointing institutional and disciplinary norms.

- **A shared ideal of the reflexive researcher as "the Brave New Researcher" of tomorrow.**

  - Is this a new understanding of the good research practice?
  - Does it individualize questions of integrity? And if so,

- Is this an **adequate respond to the overarching aim to foster a "culture t of integrity**" (EU, DK, Uni) within the local research communities (and other problems, addressed in the international and national polices)?

Thank you for your attention – time for questions!

Appendix – additional slides

Enhancing individual reflexivity through active participation and discussion.

Further discussion

- What are your experiences of training and university support for research integrity?

- There are important differences between international documents, national codes, institutional practices and PhD training. Is this a problem? Should they cohere better, and if so how?

- If integrity is not a univocal measure, but looks different in different places, what does this mean for PhD training and other support for research integrity?

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. Full paper in progress.

- Sarauw, L. L. (forthcoming, 2018). 'Teaching grey-zone research. The reversed causalities of doctoral integrity training'. Abstract submitted, August 2018. Full paper in progress.

The Overarching Project Design

WP1. History and context for the emergence of 'integrity' in international and national codes and regulations.

Why and how 'integrity' arose at particular moments, and how 'integrity' relates to 'ethics', 'trust', 'responsibility'?

WP2. Translation of Danish Code into universities and university colleges

To what extent have integrity policies been integrated into management structures and incentives?

WP3. Formal doctoral training in integrity principles and practices

How are concepts and codes of integrity understood and translated into training courses in different disciplines (health, natural sciences, arts, social sciences)?

WP4. Navigating integrity in practice

How do early career researchers form their conceptions of integrity and their research practices in the context of management and performance incentives, research and funding conditions and challenges of career development?

Health

Supplementary Info

- Health has been the integrity motor of the entire university.
- Duration: 2 separate days + 8 hour online pre-course.
- Mandatory since 2016, development started in 2014 simultaneously with the DK code.
- Capacity: 25, replicated 4 times a year.
- ECTS: 3.1 ECTS.

Key problem narratives

- The overall focus on big scandals vs. ”we are all small scale cheaters in our day-to-day practices”.
- The managerial focus on reputation and external stakeholders vs. ”building individual reflexivity”.

Solution suggested by the course design/course practice

- A demanding, participant based pedagogy of internalisation

Arts

Supplementary Info

- While Health may be seen as engine in developing the area – Arts considers itself the 'brain' in the process. Course leaders insist on centrality of ethics and reflexivity discussions.
- The Arts course has Research Ethics maintained in its title.
- Two day mandatory workshop relating PhD-fellow issues to ethics debates, integrity policies and guidelines and to researcher experiences and reflexivity over own work.
- One day optional workshop including longer reflexive papers on own research.
- "Integrity is always an issue" – And it can be a productive part of knowledge creation!

Key problem narratives

- We all share capacity for wrongdoing (breaching 'do no harm') and so require reflexivity (collective).
- Necessity to comply with standards requires alertness and the seeking of expert advise
- Quest for 'truth' as a moral project <-> all scientific inquiry is tainted/requires ethical choice making and reflexivity.

Solution suggested by course design/course practice?

Science and Technology

Supplementary Info

- The course is a "compromise" between faculty management and course leader.
- Duration: 3 hours at compulsory introduction day for PhD students. An optional course with 2 separate days.
- Introduction is repeated 4 times a year. Optional course normally repeated once a year.
- ECTS: No ECTS for introduction day, optional course: 1 ECTS + 1 optional extra point for additional assignment (written or completion of EPIGEUM course).

Key problem narratives

1) Focus primarily on "good scientific practice", on norms and standards
2) Responsibilities of the individual, the community vs. external pressures.

Solutions suggested by course design og course practice?

Business and Social Sciences

Supplementary Info

- The course is still in development.
- Duration: 2 days (retreat).
- Mandatory since 2017.
- Capacity: 35, replicated twice a year.
- ECTS: none.

Key problem narrative

1) The scientific system is “rotten” and anyone may “misstep”.
2) Young researchers are particularly vulnerable to be taken advantage of.

Solutions suggested by the course design/course practice

- Reflexivity and awareness of the individual researcher, in order to navigate the broken system.