



INTEGRITY



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The impact of positive approaches towards RCR education in practice

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What has RCR education achieved?

RCR education developed since '90s last century. In Europe mainly last decade and still fully in development

Wide variety of types of courses, length, working methods

What works: we simply did not know.

What we do know

Quality Checklist for Responsible Conduct of Research (RCR) Education

This quality checklist provides evidence-based information that can be used to improve the quality and efficacy of education for Responsible Conduct of Research (RCR).

To increase accessibility, all information on the efficacy of RCR education is provided in layered way. For instance, the cells below each contain a key phrase. A brief explanation in is offered in the form of notes (to view: place the mouse over a cell). This will give you an overview of the main characteristics of the tool.

<i>based on meta-reviews</i>	<i>focus on formal education</i>	<i>developmental perspective</i>	<i>one size does not fit all</i>	<i>inspiration & quality checks</i>
colour codes				

How to find relevant information?

You are now at most three clicks away from the main lessons on specific aspects of the efficacy of RCR education. For instance, you can go directly to a summary of how effective RCR education is overall, and how this has developed over time (see button below). If you would like to gain further insights, please follow the steps below.



Step 2: choose the

Research Article

Step:

No m

Overview

A Quality Checklist for Responsible Conduct of Research (RCR) Education: A proposal to complement the Predictive Modeling Tool

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ABSTRACT

This article presents a Quality Checklist for Responsible Conduct of Research (RCR) education. The Checklist is a tool for teachers and educational developers in RCR education containing the results of eleven reviews on the impact of RCR education. It makes these data accessible in a layered way, such that users can quickly find the information that they are interested in. The tool can complement the Predictive Modeling Tool, which allows users to fill out information about a course and provides recommendations on how the course's efficacy can be improved. We present our approach to developing the Quality Checklist prototype tool, the tool itself and how it can be used. We compare it to the PMT and discuss the added value of the Quality Checklist prototype tool, as well as its limitations. Finally, we indicate some of the ways in which the prototype tool could be further improved.

Q. KEYWORDS: Quality Checklist Responsible Conduct of Research education efficacy Predictive Modeling Tool

Case discussions are not the gold standard of Research Integrity training.

With this article, we offer you a sneak preview of our major findings from a systematic review on education for a responsible conduct of research (RCR). We have just submitted this article to a scientific journal for peer review, so this blog post constitutes a pre-publication, and we ask you to wait for the published study before making references to this work.

From 2019 to 2020, we reviewed scientific studies that investigated the effectiveness of different approaches to educate students, citizens, or researchers in a responsible conduct of research. Overall, we screened 1.548 abstracts, selecting 84 articles for full review. In the end, 30 studies met our standards for inclusion: They investigated the extent to which learners' knowledge, attitudes, or competences related to RCR improved due to an educational intervention, whereby pretests and/or a control group were utilized to measure the course outcome. We excluded studies that only assessed the degree to which learners liked a course or believed it was effective, because enjoyment does not necessarily equate to learning and learners may err about the impact that a course has had on their development (Mayer, 2014). In order for us to be able to apply statistical methods that are typical of meta-analyses, we also excluded studies that did not allow us to calculate an effect size for the effectiveness of an intervention (the main problem was that some studies only reported mean values but no standard deviations).

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Unlike prior meta-analyses on "ethics training in the sciences" (Antes, Murphy, Waples, Mumford, Brown, Connelly, & Devenport, 2009; Watts, Medeiros, Mullhearn, Steele, Connelly, & Mumford, 2017), an explicit assumption that drove our investigation was that different teaching approaches may be needed to achieve different kinds of learning outcomes related to RCR. For example, we expected that individual learning activities would be most effective when it comes to understanding, remembering, and recalling concepts, facts, and procedures related to RCR. Contrarily, we assumed that the abilities to notice and solve ethical problems would benefit from a combination of individual and group-based learning. Overall, we were able to test 10 hypotheses about effective RCR courses. To do so, we drew

RCR: fostering research integrity: an empowerment perspective

- Is about building capacities of researchers, who are functioning in collectives, institutional and systemic contexts
- Is about learning to take control
- Is to learn to develop a critical autonomy (self-reflective attitude, able to deliberate independently, able to evaluate contexts of research and able to develop strategies to become a responsible researcher
- Is feeling up to act upon decisions
- Stimulates an attitude of openness and courage (when needed)

Empowerment, as concept

- Freire “Pedagogy of the Oppressed”: system with oppressors and oppressed needs to be abandoned, we need to liberate ourselves from this, and seek human flourishing
- It will not help to ‘lift up the oppressed’(worst off in a system), the system needs to change
- Requires attitude of equality of all, dialogue to learn to be open to each other > requires awareness and development of critical attitude
- Foucault: power relations are inherent to people’s actions > increasing awareness before changes can be made

Empowerment & RCR

Positive approach > not punishing or warning, but helping to do it right (become responsible researchers)

Pro-active attitude: increasing awareness and openness to dare to discuss issues (and address these)

Not: this is how (good) research is done (take it or leave it), but helping to critically reflect all sorts of aspects in research practices

Focus more on daily practices, customs and implicit norms/culture than on FFP

Offering strategies for action and assistance (whistle blower protocols, integrity officers...)

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Empowerment: > philosophy > competence profile > tools

- Competence profile: explicating which core knowledge, skills and behaviour/attitudinal aspects are expected of responsible researchers

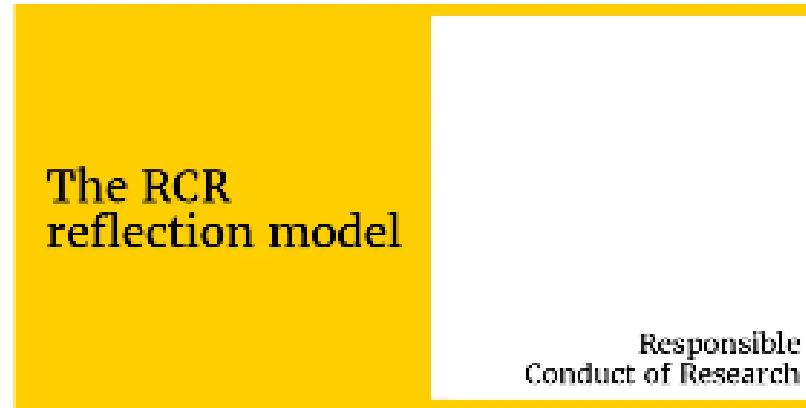
Tools	How empowered?	Status
Various tools	Aligned to their experiences, analogies in music, art. (eg free riding, plagiarism)	Tested in Ireland, Slovenia, Portugal
Web-based narrative: Integrity Case Generator	Prototype: https://krbpnz.axshare.com	Tested in Denmark and Hungary
Spocs (3) for PhD's	<ul style="list-style-type: none"> - Have open conversation with supervisor - SWOT Integrity analysis on one's project - Practice constructive reviewing 	Tested 12 times, allover Europe Available on request
MOOC for PhD's	<ul style="list-style-type: none"> - Mooc on supervision & mentoring 	MOOC: ready nov/dec 2021: freely available
SPOC for supervisors	<ul style="list-style-type: none"> - Stimulate reflection on role of supervision in RCR 	Ready Sept 2021

Sample material



Use of cartoons for reflection on supervision characteristics

Sample material: RCR reflection model





Diner Pensant (13 Oct)

Home > Diner Pensant



DINER PENSANT

Tasteful conversations to empower good practices in science.

INFORMATION

Date	Time	Location	Who's invited
October 13, 2021	5:00 pm - 7:00 pm CET	Online	Academics & Researchers

MESSAGE FROM CHEF

In academia there is usually a good appetite for doing research well. In debates on research integrity, stimulating responsible conduct of research (RCR) is a positive approach that focuses on elements that build transparent and accountable research practices. In this dinner event, RCR will be the starting point, with a special interest in the responsibility of senior researchers to introduce early career researchers to research practices. For example: which customs are openly discussed, and which (external) stimuli are considered as a given (like impact factors, competition, ...). In this entertaining and

8-9 september: European student convention

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INTEGRITY European Student Convention (8-9 Sept)

Home > European Student Convention (8-9 Sept)

European Student Convention

Event – 8th & 9th September 2021

Interested? Visit our website: www.h2020integrity.eu

Thanks for your attention

Project Partners



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