

Editorial

Teaching Research Integrity

Contemporary research is extremely competitive and the pressure to “publish or perish” is high, especially among young researchers. As a result, the risk of sloppy science and scientific misconduct is increasing. While it is difficult to precisely determine the scale on which scientific misconduct occurs, we can see, for example, that the number of retractions of papers from journals is increasing. There is therefore an urgent need to educate young researchers in responsible research practices and make them “streetwise” with regard to the topics they will encounter in their research. The increasing international cooperation between universities underscores this urgency. It is now widely accepted that most questions in daily research practices belong to a grey area (questionable research practices – QRP) in which the right or wrong nature of decisions and conduct is not always immediately clear, as opposed to the clear-cut cases of FFP (falsification, fabrication and plagiarism) that we find in the media. Moreover, the concept of Responsible Conduct of Research (RCR) focuses on what is needed in order for students and scientists to learn to recognise problematic situations, to discuss these situations with their peers, and to devise strategies for dealing with them.

The impetus for the focus issue was the ‘Integrity’ project, which ran from 1 October 2018 to 31 August 2021 under the Erasmus+ programme (project number: 2018-1-NL01-KA203-038900).¹ In addition, colleagues from two other projects on academic and research integrity were invited to report on their research findings: the ‘Integrity’ project, funded by the European Union’s Horizon 2020 research and innovation programme under grant agreement No. 824586,² and the project ‘Strengthening Academic Integrity – An Interdisciplinary Research-Based Approach to Ethical Behaviour in Higher Education’, funded by the Ministry of Science of Montenegro.³ Thus, the articles presented in the focus issue report on research findings from three international projects that address issues of integrity in research education. The second and fifth articles report on research conducted within the Erasmus+ Integrity project, the fourth article relates to the H2020 Integrity project, and the first, third and sixth articles report on the results of the ‘Strengthening Academic Integrity’ project. The last, seventh article in the focus issue is not related to the aforementioned

1 <https://erasmus-plus.ec.europa.eu/projects/search/details/2018-1-NL01-KA203-038900>

2 <https://h2020integrity.eu/>

3 <https://www.sai.ucg.ac.me/>

projects, but was published as part of an open call for papers and extends the issue of integrity in research, which in the first six articles is mainly focused on the European context, to the global context.

The published articles address questions regarding teaching related to research integrity, such as: How can research integrity policies (codes of conduct, institutional policies, government policies, etc.) be translated into the educational setting and curricula of higher education institutions? How can the “grey area” in teaching related to research integrity be addressed? How can we successfully train students to make them streetwise regarding RCR? What is needed to build the capacities of students and researchers regarding research integrity? How can we deal with research integrity education in complex environments, such as multidisciplinary or interdisciplinary environments and international collaborations? What are the complex reasons behind violations of research integrity?

The papers presented in the focus issue address these topics in various ways and in different national and cultural contexts. They are arranged as follows.

The issue opens with a theoretical article by Miloš Bošković entitled *Rethinking Legislation Governing Academic Integrity in the European Context*, which argues that legislative intervention rather than deontological rules might be an appropriate tool to address academic integrity concerns, especially in civil law jurisdictions, which is the case in most European countries. The article does not offer a ready-made approach, but its reflections may serve as inspiration for governments seeking to improve existing academic integrity rules.

The issue continues with the article by Jurij Selan and Mira Metljak *Developing and Validating the Competency Profile for Teaching and Learning Research Integrity*, in which the authors argue for the competency profile they have developed for teaching and learning research integrity based on four assumptions: inclusion of all levels of study (BA, MA and PhD); integration of research integrity into research education itself; addressing research integrity issues in context-specific practices; and special attention to the “grey area” or questionable research practices (QRPs).

The third article by Sanja Čalović Nenezić, Milena Krtolica, Milica Jelić and Suzana Šekarić, entitled *Perceptions of Students and Teachers of the University of Montenegro on Academic Integrity*, examines the perception of students and teachers of the University of Montenegro on various segments of academic honesty. The results show that the respondents understand the importance of academic integrity and honesty as its principle, but they do not recognise all of the areas it encompasses in the same way.

In the fourth article, *Empowering Supervisors Towards Responsible Research Conduct in Supervision via an Online Course: A Pilot Study*, authors Miriam van Loon and Mariëtte van den Hoven report on a course for supervisors that addresses their responsibility and role in training junior researchers in research integrity. They describe the evidence base that helped design the course and how the course is experienced by the supervisors who participated in the pilot study in early 2022.

The fifth article, entitled *Academic Writing in Teaching Research Integrity* by Mateja Dagarin Fojkar and Sanja Berčnik, evaluates an online course for undergraduates (BA) focused on developing their academic writing skills as a foundation for responsible research practice. The participating students rated the course positively, but concluded that they needed more practice in this area. The authors therefore suggest that a university course be established to provide all students with the necessary academic writing skills.

The sixth article, written by Dijana Vučković, Sanja Peković, Marijana Blečić, Jovana Janinović and Rajka Đoković, is entitled *Opinions of Montenegrin University Students and Teachers about Plagiarism and its Prevention*. The article identifies the opinions of university students and teachers about plagiarism and its prevention. It reports that the participants take plagiarism seriously when academic stakeholders commit to it, but that there is a need to provide training on academic writing so that they feel confident in their writing.

The focus issue is concluded with the article *Plagiarism in the Research Reports of Indian Doctoral Students: Causes and Remedial Action Plan* by Tapan Kumar Pradhan and Ajit Kumar. In the article, the authors identify possible causes and remedial action plans to address plagiarism in research reports of Indian doctoral students. The article assumes the widespread occurrence of plagiarism and its causes, and presents a remedial action plan that includes: establishing a research ethics committee at all academic or research institutions; proper understanding of plagiarism and its implications by conducting training, workshops and awareness campaigns early in the life of doctoral students; clarity about the purpose of research for doctoral students and emphasis on the quality of research work; development of academic writing skills; and free availability of anti-plagiarism software for all students and faculty members. The focus issue is complemented with two articles from the *Varia* section and two book reviews.

The first *Varia* article is written by Janez Drobnič and is entitled *People with Special Needs and Career Development Based on Strength*. The article deals with career counselling for people with special needs based on the paradigm of positive psychology, which is becoming increasingly relevant in counselling and

therapeutic processes. The author argues that in the case of counselling for persons with special needs, a balance needs to be achieved between a strength approach and other approaches that focus on personal problems and weaknesses.

The second *Varia* article is written by Mateja Ploj Virtič, Andre Du Plessis and Andrej Šorgo and entitled *Development and Validation of the “Mentoring for Effective Teaching Practicum Instrument”*. In the paper, the authors introduce, evaluate, and adapt the Mentoring for Effective Primary Science Teaching instrument so that it is more universal and can be used in follow-up studies to improve learning outcomes in classroom practice.

The first book review is related to the research integrity issue. Bert Theunissen reviews Jaap Bos's book *Research Ethics for Students in the Social Sciences* (Published by Springer Cham, 2020; XVI, 287 pp.: eBook ISBN 978-3-030-48415-6). In the second review, Alenka Žerovnik reviews a book from the field of informatics: Nataša Hoić-Božić and Martina Holenko Dlab, *Uvod u e-učenje: obrazovni izazovi digitalnog doba* (Published by Sveučilište u Rijeci, Odjel za informatiku, 2021; 215 pp.: ISBN: 978-953-7720-53-7.)

The focus issue is well rounded and provides relevant perspectives on research integrity topics, with an emphasis on the role of teaching in enhancing and promoting research integrity. There is perhaps one topic that is missing from the focus issue because it came to light after the issue was conceived and the research reported in the articles was conducted. It is the problem of the influence and impact of artificial intelligence (AI) on research integrity. Although the problem of AI in relation to research integrity did not appear out of nowhere and had been recognised earlier, it was not until November 2022, when ChatGPT was launched, that the use of AI tools was publicly perceived as an opportunity for research, on the one hand, but also as a threat to research integrity, on the other. As a result, in 2023, many government agencies, universities, scholarly journals and publishers have already rushed to include safeguards related to AI tools in their protocols and codes of conduct, and many researchers committed to academic integrity have raised the issue of AI in the scholarly public sphere. From this perspective, therefore, this focus issue could be seen as an opportunity that could lead to another focus issue of the CEPS Journal in the near future that would specifically address the influence and impact of AI on academic and research integrity.