ResMetEdu- Research Methodology Education

A Cross-sectional Survey on Practices and Attitudes across the European Context: preliminary results

Ivan Buljan[1] & Silke Kniffert[2] and Michiel de Boer[3]
On behalf of the ResMetEdu study group

1. Department of Psychology, Faculty of Humanities and Social Sciences, Poljička cesta 35, University of Split, Croatia
2. Berlin Institute of Health at Charité – Universitätsmedizin Berlin, QUEST Center for Responsible Research, Charitéplatz 1, 10117 Berlin, Germany
3. Department of Primary and Long-term Care, University Medical Center Groningen, the Netherlands

Background: Education and training in research methodology supports (future) researchers in performing high-quality research. Up to now, little is known about the practices in teaching research methodology across countries and disciplines, hampering the sharing of best practices.

Objective: The objective of this study was to examine practices and attitudes regarding teaching research methodology in different European countries, across disciplines and training stages. As a secondary aim, we identified the teaching techniques and use of educational tools in teaching research methodology, to determine the potential discrepancies in teaching practices.

Method: This was a cross-sectional study, utilizing an online survey approach. The survey content was partly based on the structure of the observed learning outcome (SOLO) taxonomy, which enables the categorization of knowledge outcomes (1). The survey was validated for face validity and comprehension by soliciting critical review by research methodology and teaching experts from different disciplines. Piloting was done among 10 teachers in higher education. The final survey was distributed to teachers in higher education.To collect geographically and disciplinary diverse samples, we used purposive and snowball sampling. We collected data on teaching practices and perspectives using the survey and performed descriptive interim analyses of responses.

Table 1. Characteristics of sample

Variable	Levels	Total (N=246)*	Non-RM teachers (n=66)	RM teachers (n=143)
Gender				
	Do not wish to state	3 (1.2)	1 (1.5)	2 (1.4)
	Female	139 (56.5)	36 (54.5)	83 (58.0)
	Male	101 (41.1)	28 (42.4)	57 (39.9)
	Other	3 (1.2)	1 (1.5)	1 (0.7)
Age group				
	21-30	19 (7.7)	8 (12.1)	7 (4.9)
	31-40	71 (28.9)	15 (22.7)	42 (29.4)
	41-50	67 (27.2)	19 (28.8)	41 (28.7)
	51-60	55 (22.4)	16 (24.2)	31 (21.7)
	61-70	29 (11.8)	7 (10.6)	19 (13.3)
	71-80	5 (2.0)	1 (1.5)	3 (2.1)
Teaching experience in years (Md, IQR)		13 (6 to 22)	10 (4-17)	15 (15-25)
Discipline				
	(Bio)medical & Life sciences	101 (41.1)	20 (30.3)	66 (46.2)
	Arts & Humanities	23 (9.3)	9 (13.6)	12 (8.4)
	Engineering and technology	14 (5.7)	6 (9.1)	4 (2.8)
	Natural sciences	26 (10.6)	9 (13.6)	11 (7.7)
	Other (please specify)	15 (6.1)	6 (9.1)	9 (6.3)
	Social sciences	67 (27.2)	16 (24.2)	41 (28.7)

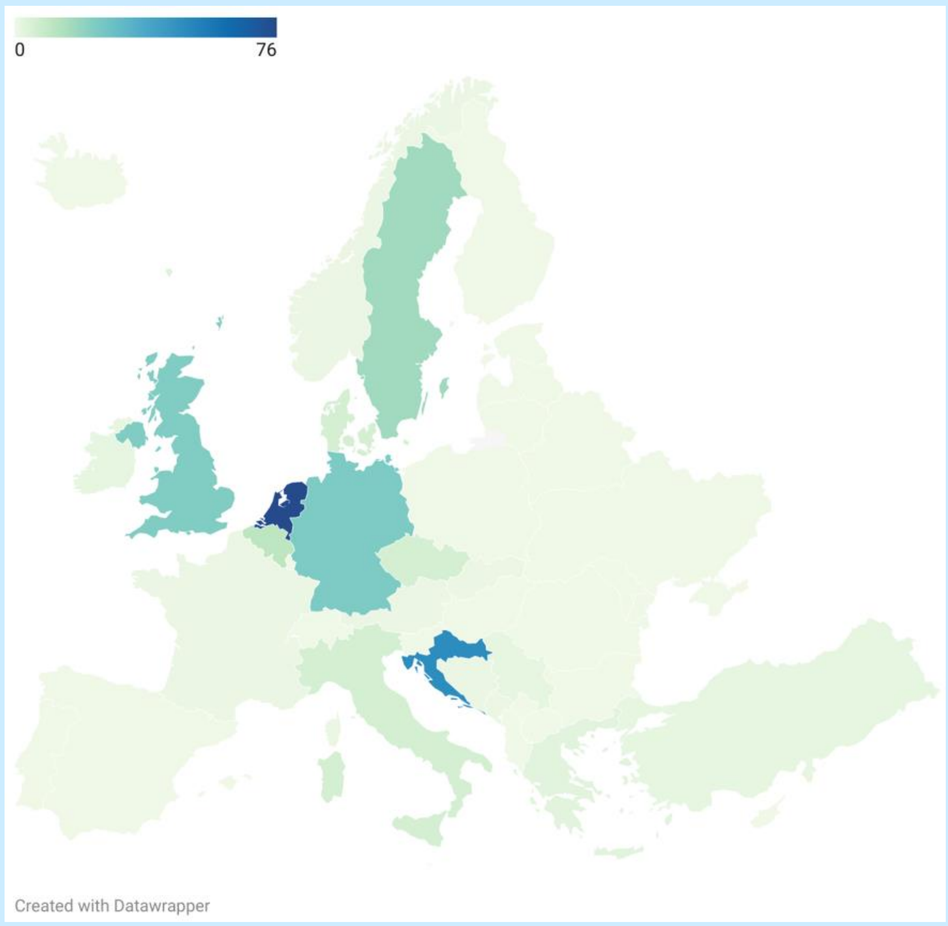

Figure 1. Participant countries (darker color = larger sample)

Results: In total 246 people were included in these interim analyses, of which the majority were female, had a PhD, and came from the biomedical or social sciences (Table 1). Countries with the highest number of participants were the Netherlands, Croatia, Germany, the UK, and Sweden, while other countries accounted for less than 15 participants each (**Figure 1**). On average, all of the RM teaching topics were rated as important to very important. We observed some small differences in these ratings, with RM teachers favoring preregistration, and non-teachers favoring sampling methods, analysis, peer review, and measurement over RM teachers (**Figure 2**).

Conclusion: Interim analyses of our ongoing survey show that both teachers of methodology and other teachers in higher education value a comprehensive set of subjects to be covered in research methodology teaching. In our final analyses of a larger sample, we aim to examine current practices and explore differences in perceptions and practices across countries, disciplines and stages.

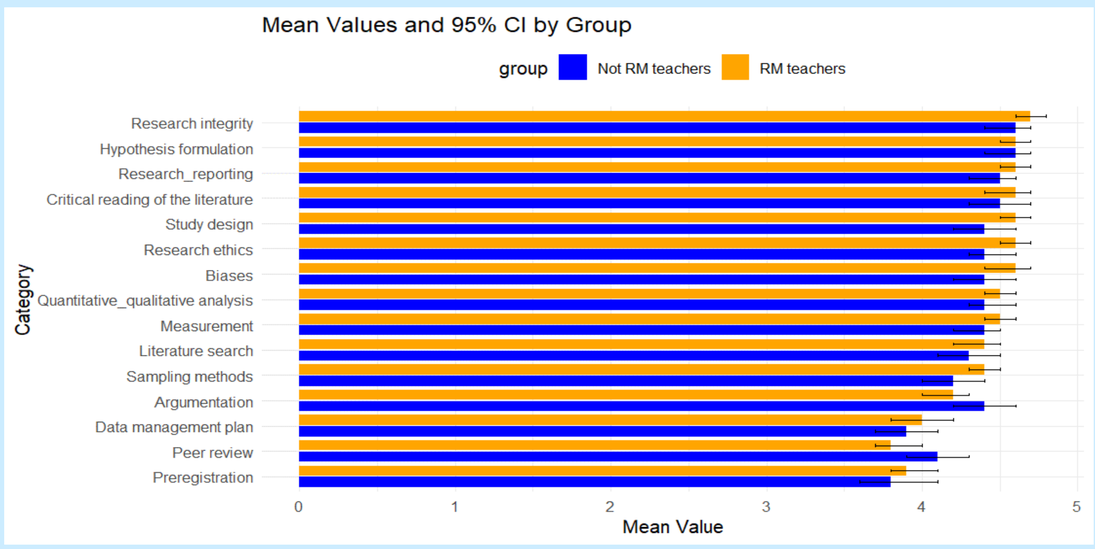

Figure 2. Importance of methodology course topics

Reference
1. Biggs, J. B., & Tang, C. (2011). *Teaching for quality learning at university* (4th ed.). Open University Press.

Help us by contributing to our ongoing survey. Please scan the QR code. Thank you!

This research received no specific grant from any funding agency (institutional, private or corporate financial support)