



Background

The National Survey on Research Integrity (NSRI) will be conducted in 2020 in the Dutch academic population. It aims to provide solid empirical evidence on the prevalence of Questionable Research Practices (QRP) and the underlying factors that promote or hinder responsible conduct of research. It will use the Randomised Response (RR) method, which is proven to elicit more honest answers (1). In our preparatory year, we pilot tested two specific objectives:

1. Assess the clarity and trustworthiness of using the RR method in an academic setting
2. Test the relevance of a number of QRPs across different disciplinary fields targeted in the NSRI (natural, social, biomedical and humanities)

These results will then be used to enhance the design of the NSRI before launch

Methods

1. For the first objective, 10,000 Belgian researchers were contacted to participate in an online survey on QRPs using the RR method (Figure 1). Researchers were randomized to use one of two conditions of the RR method (Figure 2). They then filled out an evaluation form on the clarity and trustworthiness of the specific condition they used. Logistic regression and t test were used to analyze the results.

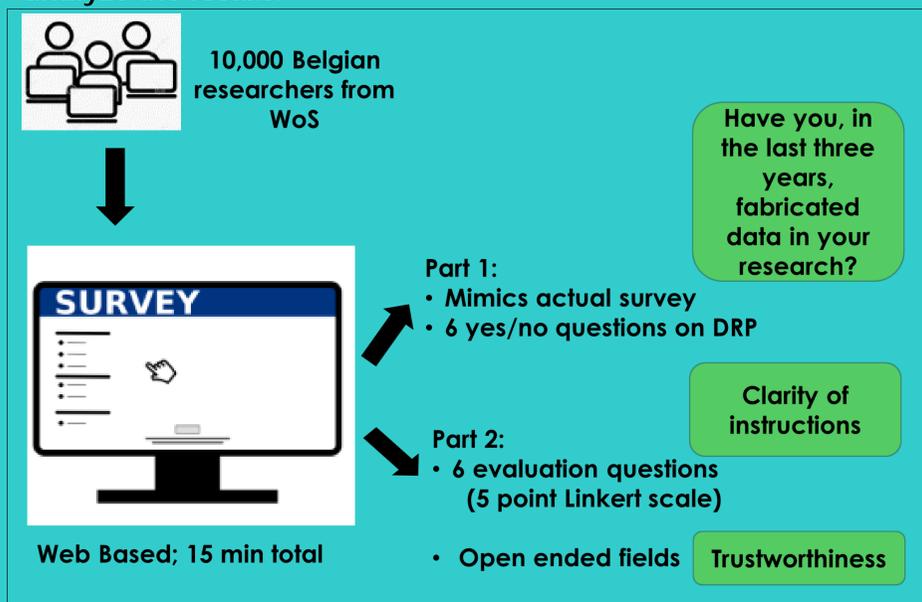


Figure 1.

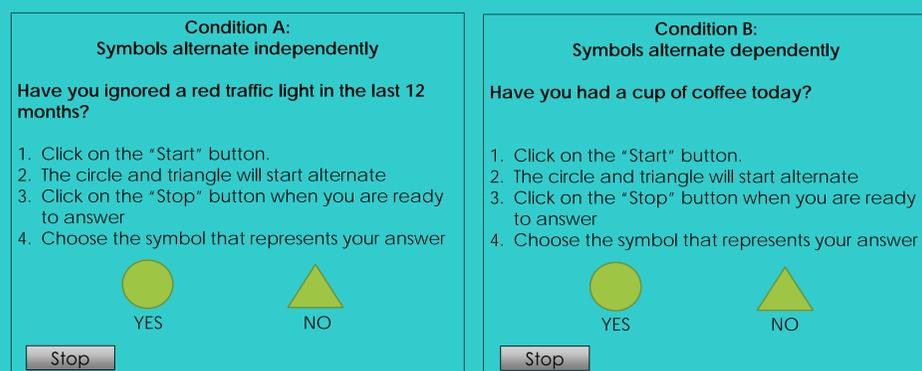


Figure 2.

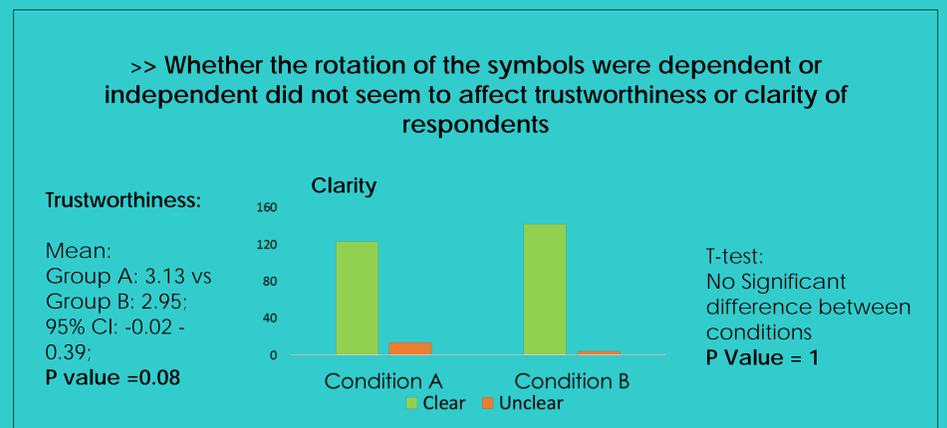
2. For the second objective, a series of Focus Group (FG) interviews of a convenient sample of Dutch researchers across the four disciplinary fields (DF) were conducted. A semi structured topic guide was used to explore views on the relevance of the QRPs per DF (2).

The QRPs by Disciplinary Field used in the FG interviews can be viewed through the QR code



Results

Objective 1: There was no significant difference in clarity or trustworthiness between the 2 RR conditions tested



However, Condition A had a higher drop out. Responses in the evaluation form support that Condition B was less confusing and might have contributed to less drop out.

Condition A significantly more dropout (30.1%) than Condition B (7.5%); p-value = 0.005

Objective 2: In the FG study, participants from social sciences and humanities expressed that what is a QRP in one field may not hold true in another due to different ways of knowledge production. Terminology used in these QRPs was also not always relevant to particularly these two disciplines.

In total we had 29 participants (N=415 invited, 29 participated), divided in 8 FG. The minimum number of participants per FG ranged from 2; maximum 7.

THEME	IMPLICATION FOR NSRI
QRPs should take into account diversity of disciplinary fields (DF)	- Add the option to skip QRPs that maybe not relevant to survey participants - Consider adding clarifications of a QRP to help respondents understand what it means to their DF
Wording/phrasing of QRPs	- Take into account normative use of wording and test the relevance of reworded QRPs using FGs at a later stage of this project
Filter respondents and QRPs	- Consider adding more layers of refinement to demographics of respondents as well as type of QRPs: individual level vs more systematic level
Include other questions	Consider the inclusion of a drop down list of improvements seen in the DFs for respondents to select

Conclusion

The National Survey will use the preferred variation of the RR method as it led to less drop outs. Normative wording and further testing of the newly formulated QRPs will be conducted to ensure relevance to the different disciplinary fields before inclusion in the NSRI.

References

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Authors' affiliations:

- 1: Vrije Universiteit Amsterdam (VU) & VU University Medical Center (VUmc), NL
- 2: Tilburg University, NL
- 3: Academic Medical Center (loc. Meibergdreef), NL
- 4: Utrecht University, NL