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(with a co-supervisor if the chosen subdomains are beyond applied linguistics – see below)

Open science and a collaborative ethic in research: Motivations, barriers, and benefits

A) RATIONALE FOR THE PROJECT
Open science practices involve making the processes and products of research freely available for scrutiny by all. Open science can include making available the materials and procedures used to collect, code, and analyse data, as well as the data and final reports themselves. Across many disciplines, including within social sciences, such practices are increasingly encouraged via incentives from governments, funders, universities, journals and publishers. Open science is considered desirable for reasons relating to (a) social equity (publicly paid research should be available to the public), (b) the quality of research (rigour, validity and reliability), and (c) the rate of progress (allowing more and better replication). However, despite many calls over several decades, research communities are slow to react, in part due to a lack of data. This PhD would be among the first studies to provide hard data about attitudes towards and benefits of open science.

B) REFERENCES THAT SHOULD BE READ (if you do not have access to these, please email me)

C) RESEARCH AIMS / QUESTIONS
The project will select one (or a small number) of subdomains of education-related discipline(s), such as applied linguistics, cognitive or social psychology, sociology, or of education research (e.g. language or science education), and investigate:
1) why researchers do and do not adopt a range of open science practices
2) journal editors’ and reviewers’ views and behaviours in terms of promoting open science practices
3) the benefits of methodological transparency, in terms of increased quality, trustworthiness, and impact.
D) METHODS

Aims 1 & 2). To investigate the attitudes and behaviours of researchers, editors and reviewers, questionnaires will be developed and administered to approx. 200 researchers, 200 reviewers, and 30 journal editors.

Aim 3). To investigate benefits of open science, we would develop indices of ‘methodological transparency’ (e.g. instrument and data availability, reporting) and correlate these with indices of ‘quality’ (e.g. instrument or rater reliability, statistical rigour), ‘trustworthiness’ (readers’ perceptions), and ‘impact’ (e.g. citation, journal impact factor, extent of replication).

E) SKILLS AND OPPORTUNITIES YOU COULD GAIN

This project is closely linked to the British Academy funded IRIS project, including opportunities for research assistant roles working with large established networks of researchers, editors and professional associations. See www.iris-database.org. The project will also draw on Marsden’s role as associate editor at Language Learning and The Department of Education’s working group on open science.