New methods for new methods

How to teach new research methods to young investigators in the humanities and social sciences? Best practices and visions for the future

Problem

Human and social sciences are complex fields in which many variables impact upon outcomes. Indeed, many analysts consider such social fields, despite the perception that they are the 'soft' sciences, to be the hardest fields to research (Berliner, 2002; Phillips, 2014; Wieman, 2014). Furthermore, in the early 21st century, it would seem that human and social conditions are changing rapidly meaning that accepted and conventional means of investigation may need to be updated to cope with changing circumstances (Walker & Dimmock, 2002). A key contemporary change is increased globalisation and cross-cultural or cross-linguistic interactions which change both the conditions of inquiry and the validity of extant research methods. This is further complicated by modern advances in electronic communication technologies (e.g., online and open source software, smart phone applications, mobile computing, etc.) and knowledge stores (e.g., online encyclopedia, tutoring programs, etc.) which support collaboration and learning. These factors mean that multiple and plural methods of research have become the accepted best practice for scientific research in these domains (Berliner, 2006; Jones & Cleveland-Inners, 2004; Larson & Besett-Alesch, 2000; Maxwell, 2004; Page, 2001; Peacock, 2001; Siegel, 2006). It also means that new methods of research are constantly being developed. These methods range from interventionist/experimental and statistical to highly personal and interpretive or hermeneutic. While new research paradigms (e.g., indigenous research) have developed valid protocols for data collection (e.g., Denzin, Lincoln, & Smith, 2008), they do not necessarily have well-developed analytic procedures. This general problem is especially relevant for young researchers working in challenging contexts.

Doctoral level education is considered gold standard in the preparation of young researchers for independent empirical investigations in the human and social sciences. Three models of researcher development dominate contemporary doctoral education: (1) the British model relying predominantly on supervisors to provide substantive and methodological training; (2) the American model requiring two years of course work, with a strong emphasis on research design and statistical analysis, before empirical work; and (3) a technology-assisted, self-directed model arising from the proliferation of online tools (e.g., VassarStats, Trochim's Research Methods Knowledge Base, Fourmilab, etc.). The challenge for higher education is that current approaches to preparing new researchers cannot adequately teach doctoral students the full range of diverse methods or skills needed to judge the validity of methods and/or results from so many methods, or the ability to develop and evaluate new methods. Hence, this program seeks to investigate best practices and visions for the future of (a) research methodology, (b) research method instruction, and (c) development of new research methods.

Our planned project will include several parts of investigation. The results of these investigations will be presented and discussed on an international symposium in Germany.

Part 1: Expert Interviews

Using a qualitative semi-structured interview method, we propose obtaining responses to the three topics from a select sample of highly regarded research methods researchers and supervisors in Germany and New Zealand. These interviews will provide an initial tentative outline of new methods.

For example from the editorial board of Methodology

Michael Eid, Berlin, Germany
Uwe Engel, University of Bremen, Germany
Edgar Erdfelder, University of Mannheim, Germany
Steffen Kühnel, University of Göttingen, Germany
Helfried Moosbrugger, University of Frankfurt am Main, Germany
Jost Reinecke, University of Bielefeld, Germany
Jürgen Rost, Kiel, Germany
Rolf Steyer, University of Jena, Germany

In New Zealand and Australia, there are university- and faculty-level prizes for excellence in supervision of postgraduate and doctoral research students. Winners of such prizes will be selected for interview.

Proposed Outlets:

In German *Empirische Pädagogik: Zeitschrift zu Theorie und Praxis erziehungswissenschaftlicher Forschung*

In English: *Higher Education*

Part 2: Delphi Study

An international Delphi survey study of research methods instructors. The expert pool will be drawn from highly regarded research methods researchers and supervisors identified by their having won recognition or award from a professional body or appropriate authority. The focus of the Delphi study would be on their perceptions or vision concerning new research methods or challenges that will come into play over the next 25-50 years.

Proposed Outlets:

Educational Researcher

Part 3: Review of Cutting Edge Methods

A literature review of cutting edge methods currently being developed that are not yet widely adopted and which have potential to become expected best practice in data collection and/or data analysis. We need to know what to teach now to future supervisors & teachers so that they will be competent in the future to replace the current cohort of supervisors and teachers.

Proposed Outlets:

International Journal of Social Research Methodology

Methodology: European Journal of Research Methods for the Behavioral and Social Sciences

Final international symposium

A symposium of European and Antipodean research methods instructors and researchers to discuss and respond to the results of Projects 1-3. Approximately 20 academics from fields such as economics, education, sociology, psychology, and political science will be invited to present a considered opinion

and/or response which will be edited for inclusion in a conference proceedings book. Each academic will be required to bring one doctoral student as an observer and as part of their methodological training. The students will be required to produce a research methods poster (i.e., data collection or data analysis) to be presented to the symposium focusing on its strengths & weaknesses.

Proposed Outlets:

An edited volume to be published by a significant academic publisher (e.g., Springer, Elsevier, Sage).

Outlook

This project combines the experience and wisdom of well-acknowledged scientists with the innovative ideas and energy of young researchers at the beginning of their career. The planned publications will start a broader reflection of the problem and help to discuss and find new ways for learning and teaching methods on an advanced level.

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