

## **Scoping paper 7B for “RadStats in the age of Big Data” meeting, 2<sup>nd</sup> Oct.**

### **Jackie Carter: Experiential learning of statistics – being critical in (and of?) the workplace**

This paper complements that of Trude Sundberg ‘Teaching (stats/QM) and Training’ (SP7a). The outline proposed needs more thought but hopefully captures the essence of a useful contribution to the book under discussion

#### ***From learning in the classroom to doing in to the workplace***

The Q-Step programme is an attempt to provide students with the data analysis and statistical skills to understand, interpret, critique and do social research based on quantitative methods. Much emphasis is placed on the practical aspects of this skills development, with lab teaching often being cited as a reason for this being difficult and time-consuming in the undergraduate curriculum.

Some of the Q-Step centres are taking the approach of placing students into the workplace to undertake data analysis. A growing body of case studies is enabling us to collect examples of what it means to ‘do data analysis’ across a range of organisations, from think-tanks (social and economic), polling and market research companies, media organisations, corporates and third sector, local and national government departments, and large international statistical organisations (including the World Bank).

Experiences of undergraduates, through work placements and paid internships, enables them to observe how data are used in policy making and argumentation, how data are collected and analysed, the reality of making decisions about data sources, methods used, presentation of results and communication of findings to disparate audiences. Students’ reflections on these experiences are indicating that the way data analysis is taught in the classroom is often a long way from how data analysis is performed in ‘the real world’.

#### ***Critical reflection of experiential learning***

The contribution in this “chapter” would be to reflect critically on:

- The gap between teaching statistics/QM and practice in the workplace
- The development of students’ critical skills in workplace environments that might be far from radical
- The development of students skills that might support them in engaging with radical statistics

The chapter would also enable RadStats to take perspectives across the social sciences involved in Q-Step, with students studying politics and international relations, criminology, sociology, philosophy and social anthropology (not economics or psychology). The types of organisations that students might engage with as undergraduates might include those involved in policy making, but not necessarily taking a radical approach. Student perspectives onto the workplace could be explored to reflect on the mismatch between academic theory and practice in the world of work.