

**Title:** Can students' knowledge, skills and experiences of research methods serve as a proxy for learning gain?

**Presenter:** Rebecca Turner, Claire Gray, Carole Sutton, Reema Muneer, Julie Swain & Mark Stone  
University of Plymouth

### Session Learning Outcomes

By the end of this session, delegates will be able to:

- Identify the current challenges surrounding research methods teaching in HE
- Discuss different measures of learning gain and their potential application
- Consider the role of 'learning gain' as an educational enhancement activity

### Session Outline

Research methods are an integral element of undergraduate study and are delivered across a range of disciplinary and institutional contexts (Kilburn et al., 2014). Undergraduates' developing a solid grounding in research methods not only prepares them for the rigours of final year research projects, but also provides them with essential skills required by employers (Murtonen & Lehtinene, 2005). However research methods are an aspect of learning and teaching that is challenging for both staff and students. Research methods represent an aspect of their studies students struggle to engage with, manifesting in discussions over perceived relevance and student anxiety (Earley, 2014; Scott Jones & Goldring, 2005). Likewise the delivery of research methods has been observed as somewhat marginalised with implications for pedagogic innovation and staff development (Kilburn et al., 2014). These issues are particularly acute in college-based HE where the role of scholarship and research are widely contested (Gray et al., 2015)

Despite these challenges the universal presence of research methods in all levels of undergraduate education creates the potential for developing a measure of learning gain that can cross disciplinary and institutional boundaries. Through a HEFCE Learning Gain Pilot we are developing a measure of learning gain which captures students' knowledge, skills and experiences of research methods and how that change over the course of their studies. The pilot is centred on created a tool which is currently been piloted across 18 programmes drawn from the Arts, Social Sciences and Sciences delivered through Plymouth University and its network of colleges. Through this pilot we will therefore not only gains insights into the efficacy of research methods as a predictor of learning gain, but also contemporary knowledge around research methods provision in college and university-based HE.

In this session we will introduce the 'research methods learning gain tool' and invite participants to review and evaluate its applicability to their own contexts. To support this we will share the outcomes of the pilot and discuss the range of measures used to validate the tool as a measure of learning gain.

### **Session Activities and Approximate Timings**

15 minutes: Introduction to contemporary thinking around research methods teaching and the rationale of the use of research methods as a proxy for learning gain

20 minutes: Workshop activity: critique of measures of learning gain – drawing on the range of measures of LG presented in the Rand report we will consider their application and relevance to the context of participants.

10 minutes: Presentation of the Research Methods Learning Gain tool

20 minutes: Workshop activity: participants will be asked to engage with, review and critique the tool.

10 minutes: Reflecting on the feedback of the workshop activity with reference to the outcomes of the current pilot at Plymouth University

10 minutes: Discussion and review of the educational enhancement potential of the tool.

10 minutes: Q&A

### **References**

Earley, M.A. (2014). A synthesis of the literature on research methods education. *Teaching in Higher Education*, 19, 242-253.

Gray, C., Turner, R., Sutton, C., Petersen, C., Stevens, S., Swain, J., Esmond, B., Schofield, C. & Thackeray, D. (2015). Research methods teaching in vocational environments: developing critical engagement with knowledge? *Journal of Vocational Education and Training*, 67, 274-293.

Kilburn, D., Nind, M. & Wiles, R. (2014). Learning as researchers and teachers: the development of a pedagogical culture for social science research methods? *British Journal of Education Studies*, 62, 191-207.

Murtonen, M., & Lehtinen, E. 2005. Conceptions of research and methodology learning. *Scandinavian Journal of Educational Research*, 49, 217-224.

Scott Jones, J. & Goldring, J.E. (2015). 'I'm not a quants person'; key strategies in building competence and confidence in staff who teach quantitative research methods. *International Journal of Social Research Methodology*, 18, 479-494.