

Three approaches used in research methods teaching

NCRM trainers, like all teachers of research methods, grapple with the challenge of supporting learners to develop the methodological competences needed to conduct robust research. The NCRM Pedagogy of Methodological learning project¹ has identified a host of teaching approaches being used across the social sciences for methods and methodology. In this guide we outline three broad, respected and inter-related approaches: active learning, experiential learning and student-centred learning. Our aim is to make methods teaching practices more transparent and knowable, and to stimulate debate about how we think about methods teaching and training.

1. Active learning connects learners to research methods

Many teachers deploy active learning – an approach in which learners are actively doing things as part of getting to grips with a research method. This hands-on approach gets learners involved in activities; for example, doing exercises, working through examples, exploring metaphors, and working with visualisations or vignettes as a critical part of getting to know a research method. However, active learning does not just get learners doing things, it encourages them to actively think about what they are doing and why. Activities, such as simulations, need to be carefully planned to ensure this, perhaps guiding learners towards discovery of important features of a method to enhance understanding of underlying concepts and processes². Users of an active learning approach find it works well when the activity enables learners to connect directly with the complexities of the method and thereby to make more sense of it. Examples from the Pedagogy of Methodological learning research include:

- ● ● Reflecting together on 'back stage' accounts of actual research processes
- ● ● Translating new terminology and concepts into plain/accessible language
- ● ● Reading/critiquing how methods have been used in recent research
- ● ● Using engaging datasets to practice analytic methods on
- ● ● Working through statistical problems and using worked examples
- ● ● Using interactive simulations and demonstrations of statistical concepts
- ● ● Discussing diverse approaches to solve a given research problem
- ● ● Engaging with film clips as illustrations of the principles of inquiry.

2. Experiential Learning gives learners experience of research methods

Experiential learning provides learners with first-hand experience of something – in our case a research method - as a critical part of the learning process³. Adopters of experiential learning approaches place high value on experiences of using research methods in real-world contexts, on using authentic datasets and engaging with authentic research problems. They move from 'hands on' to 'first hand' experience in which learners are said to be 'getting their hands dirty'. Experiential learning is frequently articulated through applied practice in projects and problem-based learning in the field. Experiences are structured to promote procedural understanding as well as technical skills while highlighting the challenges of various research techniques in context. Learners on courses may bring their own experiences, reflections or data into the classroom to work with, perhaps presenting to peers lessons learned from other educational experiences, internships or professional practice, or providing their own (real) project data for data cleaning exercises. Examples from our research include:

- ● ● Developing and testing survey questions as a small part of a major study
- ● ● Creating a portfolio of samples of applying the method
- ● ● Doing fieldwork notes based on observational work
- ● ● Experimental writing following various interviews in the field
- ● ● Immersion in arts-based inquiry
- ● ● Using personal data and narratives for analytic exercises
- ● ● Working together with software to scrape data from digital sources

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Proponents of experiential learning approaches highlight the tacit knowledge, particularly regarding operational challenges and the situated nature of research expertise that learners gain from immersive experiences. They argue that research methods cannot be learned in the abstract⁴, and that it is important that methods are not disembodied from real research problems and contexts. Johnny Saldaña, an expert interviewed in the course of our research⁵, referred to providing 'experiential reference points' for future work and Richard Rogers spoke of the empowering nature of experiential knowledge for later using a method on your own. For Eisenhard and Jurow⁶ experiential pedagogies are the 'signature pedagogy' for qualitative research.

3. Student-centred learning builds from learners' interests and needs

Student-centred learning is an approach that is entirely compatible with active and experiential learning in that students are actively engaged and constructing meaning for themselves based on their prior experiences. Johnny Saldaña, for example, asserted 'I am VERY student-centered in my pedagogical approaches in research methods courses. I try to make them as active as possible in order to provide experiential learning.' Methods teachers in the study who prioritise student-centred learning were often influenced by John Dewey. The starting points for this approach are the experiences, interests and needs of the people learning the research method – individuals and their peers. This ensures immediate relevancy, and recognises the expertise and value that learners themselves bring to the classroom. The teacher's role is much more one of facilitator (or as John Creswell described, sculptor) rather than instructor. As Paul Vogt reflected, it involves the teacher considering what the students know and what they need to know. Examples from our research include:

- ● ● Sharing research projects and research needs across a group
- ● ● Working outwards from the student's research question
- ● ● Understanding and using the students' cultural and disciplinary reference points
- ● ● Starting with three things that learners identify as having influenced them most in their career and using these to explore comparisons and commonality, fostering insights and personal ownership

- ● ● Developing supportive text resources or software based on minimal cognitive load: 'what does the student need to know for what the student has to do and what's the pathway to getting there with the smallest number of obstacles in it' (Chris Wild)

References

1. The Pedagogy of Methodological Learning project <http://pedagogy.ncrm.ac.uk>
2. Camille Peres, S., Lane, D. & Griggs, K. (2010) Using simulations for active learning: the query-first method in practice. Paper presented at the 8th International Conference on Teaching Statistics (ICOTS8), Ljubljana, 11–16 July 2010. http://iase-web.org/documents/papers/icots8/ICOTS8_9E2_PERES.pdf
3. Kolb, D.A. (2014): *Experiential learning: experience as the source of learning and development*. FT Press.
4. Hammersley, M. (2012) Is it possible to teach social research methods well today? Discussion paper presented at HEA Social Sciences Teaching and Learning Summit: Teaching Research Methods, University of Warwick, 21–22 June 2012.
5. Lewthwaite, S. & Nind, M. (2016) Teaching Research Methods in the Social Sciences: Expert Perspectives on Pedagogy and Practice. *British Journal of Educational Research*. pp. 413–430. <http://dx.doi.org/10.1080/00071005.2016.1197882>
6. Eisenhart, M. & Jurow, S. (2011) Teaching qualitative research. In N. Denzin and Y. Lincoln (Eds) *The SAGE Handbook of Qualitative Research* (4th edn) (Thousand Oaks, CA, SAGE), 699–714.

Further guides in this series are in production: look out for them on the NCRM website. As part of current research on The Pedagogy of Methodological Research project (<http://pedagogy.ncrm.ac.uk/>) We also appreciate feedback to inform future work.

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