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Teaching research through participant learning

Paula S. Karlsson[1]

Abstract

This praxis paper explores the theory and practice of teaching research methods and explains how the author combined her scholarship project with her teaching for the purpose of collecting data but also for demonstrating a research project in practice for her students to teach them research methods. A tentative new approach ('participant learning') to teaching research methods is proposed.

Keywords

participant learning, research, methods, reflection

[1] University of Glasgow, Glasgow, UK

Corresponding Author:

Paula S. Karlsson, Adam Smith Business School, University of Glasgow, Main Building, University Avenue, Glasgow, G12 8QQ, UK

Email: Paula.Karlsson@glasgow.ac.uk

Introduction

As a learning, teaching, and scholarship (LTS) academic, I am always on the lookout for scholarship project ideas or places where I can 'collect data' for my scholarship projects. Sometimes these teaching and scholarship roles neatly converge as one. In this praxis paper I explore the theory and practice of teaching research methods and explain how I combined my scholarship project with my teaching for the purpose of collecting data but also for demonstrating a research project in practice for my students to teach them research methods. The idea that "research and teaching are inextricably interlinked", especially scholarship research, is firmly part of my academic self-identity (Healey, 2005, p. 184), so the fact that I was afforded this opportunity to combine both so seamlessly was a novel experience. This article explores a pre-Covid situation, but one that should be equally applicable in post-Covid life.

Context of my teaching and scholarship project

In this section, I will explain the context in which my research methods teaching and scholarship project took place, while situating it within the existing literature on teaching research methods.

Most degree programmes today contain some research methods education (Wagner et al., 2011). In 2018, I was teaching a research methods course for the second consecutive year on the same (International Business & Entrepreneurship) master's programme. This is a one-year programme, where students take the research methods course in their second semester, and it typically is taught through a block teaching model, in this case with classes taught over only three weeks. Interestingly, the course was named 'Specialist research methods' which to some students indicated that they would learn just that, specialist research methods e.g., for business and entrepreneurship research. However, the course was on a 'specialist management master's programme' focused on international business and entrepreneurship (as opposed to a generalist management master's programme focused on management more generally) so the specialist in the course title just derived from that without signifying any deeper meaning.

Wagner et al. (2011, p. 75) argued that while there was literature on "the 'how to' of research methods", the existing literature did not adequately inform how one should teach research methods, with Lewthwaite and Lind (2016) and Nind and Lewthwaite (2018) corroborating that the teaching of research methods had received little pedagogic attention and pointing to a lack of an agreed curricula. Wagner et al. (2011) further noted that what higher education needed was teachers that were experts in research methods. Earley (2014), in his synthesis of the literature on research methods education, found that because research methods education is not an established field, those teaching research methods rarely hold any formal training in how to teach it, and instead rely on their peers, scattered research literature, and trial and error. All of these applied to me. Furthermore, I was not an expert in the specialist subject (international business & entrepreneurship) nor research methods, but the argument for my 'expertise' in research methods (from those assigning teaching workloads) was likely that I had completed a substantial research project (a PhD) so I must be able to teach research methods, much like the 'old school' assumption that because we have done discipline research in our PhD field, we must be able to teach that discipline – a flawed assumption, if you like. What did put me in a bit more of an 'expert category', was that I have methodological expertise (given extensive applied experience of research methods gained through e.g. PhD

research) combined with pedagogical expertise (being on an LTS career track and having completed some pedagogical training as required by this role) – a lack of this combination has been found to be a challenge in the development of excellence in the teaching of research methods (Lewthwaite & Nind, 2016).

Earley (2014) identified several areas where improvements should be made in research on the subject of research methods education, including discussion of what students learn during the course, discussion of the course learning objectives and learning outcomes, discussion of how students are assessed, and outlining the type of student in question i.e., consumer or producer of research. I have tried to address these as part of explaining my context.

My first year on the course I was a just lecturer on it, but the second year (2018) I had taken over as course leader, though in many ways I had inherited the course as it was, so no changes had been made e.g., to the course aim or outcomes (see Table 1). The main elements of these, as reflected in the teaching method I outline in this article, relate to teaching about the 'research process' and 'critically assessing and applying a range of research techniques'.

Table 1. Aim and outcomes

Aim	Intended learning outcomes
This Research Methods course aims to enable students to critically examine a specific management research problem through the research process and to provide solutions for such problems.	By the end of the course students will be able to: • Identify and delineate a research question pertaining to a management problem • Critically analyse relevant literature • Examine the relationship between research process and managerial practice • Critically assess and apply a range of research techniques: literature searches and gathering and analysing secondary data. • Develop a research plan or proposal for a specific management problem

The first year I had struggled with the distinct gap in knowledge between students on the course. By that I mean that some students had completed a traditional dissertation using empirical research in their previous studies and some of these students had even completed fairly advanced projects. Some students however had not engaged in a traditional research dissertation at all but had completed something more akin to an extended essay. This truly only became evident from the end of term course evaluations where it was clear that some students would have wanted to cover more advanced aspects, given the 'specialist' nature of the course. So, in consecutive years, when it came to teaching the students on the course about all aspects of research, I needed to teach them the basics but also more advanced content to appeal to the broad audience, but also clarify, early on, the real nature of the course, and openly query students on their research experiences so that there was a shared understanding in the class of what could be achieved with the baseline knowledge of the majority of students. Students gained a basic knowledge of research, got a flavour for a variety of methods, and the opportunity

to practice some of the data collection and analytical methods. Students were ultimately assessed via a research proposal (an assessment used often in research methods courses, Earley, 2014), which was intended to be used for their upcoming dissertation.

The course was in many ways used to prepare students for doing empirical research outside of the research methods course, if not in their dissertations later that year, then on a consultancy course running parallel with the research methods course in which they were expected to use empirical data collection methods and analysis. In the latter, their research was covered by a blanket ethical approval for that course (received from the college for that specific postgraduate programme), so they would not need to 'concern themselves' with ethics, whereas in the former, if they were to do empirical research with human participants, they would need to be familiar with ethics in research and complete an ethical approval application and submit it to the college. For both 'course purposes', students could arguably be considered 'producers' of research (Earley, 2014). I also wanted to prepare the students for a life in business where they would likely need to apply research skills, or analyse others' research (see Kilburn et al., 2014), therefore being both 'producers' and 'consumers' (Earley, 2014). Hence, there was a lot of ground to cover to prepare the students for the inevitability of doing empirical research in various scenarios and all the considerations that go with that.

At the time of teaching this course, I had an ongoing scholarship project, the Digital One-Minute Paper (DOMP) in which we were trialling the traditional one-minute paper with several formats (paper, post-it notes, and digital versions – mainly the YACRS [Yet Another Classroom Response System] classroom response system we had at the university) and were collecting data from staff using the DOMP and from students as participants in the DOMP (Karlsson-Brown et al., 2021). It was this latter aspect that pertained to this article specifically.

The teaching method

Ethics

In the very first class of the research methods course, students were taught about the process of research, and the essential nature of ethics as part of research (British Educational Research Association [BERA], 2018). We know that our ethical approval process is extensive in the College of Social Sciences. I wanted to really hammer that in to prepare the students for how time consuming this – sometimes neglected – part of the research process would be. I've seen ethics being neglected in so many research proposals, where it is given merely cursory attention and the time allowed for preparing and completing related documents are vastly underestimated. I wanted to do this by showing some of the documents, and by demonstrating to the students what being on the receiving end of someone requesting research participants is like, especially with the number of documents that prospective participants need to read before even participating in data collection. In the past, I had simply gone over the basics of ethics in research and referred students to the relevant college ethics website with a strong recommendation that students familiarise themselves with the information available. This time, I explained the ethical approval process and showed the different documents that needed to be completed, before providing students with information about my own scholarship study (following the BERA, 2018 guidelines), outlining how I would use it in class, for what purpose, and what the ethical implications were from it. I asked students to review the participant information sheet after the class and informed them that their

consent to participate in my study was implied if they participated in any of the one-minute paper exercises during the course. All this information was communicated on Moodle, our Virtual Learning Environment, as well for those who might have missed the class, and to further remind students of my project and refer them to the relevant documents.

Data collection

When it was time to cover data collection in the course, I used the one-minute paper to demonstrate a form of survey in which I collected open ended qualitative data. I did this in two different classes in different formats: one was through a paper 'questionnaire', i.e. it looked very much like a traditional paper-based survey; and one was through the online classroom response system, i.e. it looked like an online survey. The following fairly traditional one-minute paper-based questions were asked:

- What topic/content have you enjoyed the most in this Research Methods course so far?
- What topic/content have you enjoyed the least in this Research Methods course so far?
- Is there anything you do not understand from this Research Methods course so far, that you would like me to explain better? (E.g., are you confused about something?)
- What do you want to find out more about, that has or has not been covered in this Research Methods course so far?

Data analysis

When it was time to cover data analysis in the course, I was able to use the data collected from the students to show what data analysis could look like in practice. From the 40 strong sample population, I had received responses from 30 participants during one of these OMP exercises. The data had been collected anonymously but I did not want to show the processing of raw data in full given that it was collected for my own research project, and I wanted to have time to check and de-identify the data (if there was any risk of students having identified themselves – which they could have done through the YACRS system). Furthermore, the cohort was international so I also wanted to have a chance to 'clean' the text so that no one would feel uncomfortable if their responses e.g., with typos and other grammatical errors would be up on the screen. Therefore, I had conducted a very surface level thematic analysis before the class, categorising the data into different codes or themes (e.g., proposal/dissertation guidelines, topic, literature review, methods, data), and was able to show this to the students, with the corresponding (cleaned and condensed) data for each.

Reflection on the method

Existing research (Earley, 2014; Healey, 2005) emphasises the need to teach the practice of research, i.e. that students get an opportunity to engage directly in research activities. The main-streaming model is that such activities are embedded in the curriculum for all students to benefit from, as opposed to only a select few having research experiences through e.g., research assistant roles (Healey & Jenkins, 2018). Due to the nature and timespan of the course, I was not able to incorporate a research project that students

would do themselves (individually or in groups). However, I still value teaching methods involving 'active learning' and 'learning by doing or general experiential learning', techniques found in much of the research methods education literature (Earley, 2014) and in conventional education literature (Bonwell & Eison, 1991), hence I try to teach research methods through student-centred approaches (Kilburn et al., 2014) by incorporating such techniques in this research methods course.

Interestingly, Healey (2005) does not include involving students as research participants in his list of seven different methods of linking research and teaching, although he separately mentions that the curricula can be designed based on students being treated as the audience or participants. In my view, using students as participants and their own responses as research data, to inform the discussion of a particular concept or research method, meant that there was more 'meaning' attached to the discussion of the research methods process and distinct parts of it (arguably, a way of making research more visible, which has been found important in learning research methods, Kilburn et al., 2014), than if I merely used an exercise with random data that I or the students themselves performed some form of analysis on. Of course, we did this too as part of the course (e.g., practicing thematic analysis of an interview extract, in other words active learning/learning by doing/experiential learning, Kilburn et al., 2014), but building this element of 'students as research participants' into the course design as a way of demonstrating research in practice, and what I believe is still a form of active engagement in the research process, allowed me to show how the otherwise theoretical or abstract concepts genuinely applied in practice (Healey, 2005; Kilburn et al., 2014). Both approaches still involved active learning as students participated directly in the learning process, as opposed to being simply recipients of knowledge (Bonwell & Eison, 1991). I found it a more organic way of teaching research methods, as the students were involved in a project as participants, so while they were not applying their learning in practice (which they would have done through analysing an interview extract), they were in essence seeing their learning being applied to them and could to some extent put themselves into the shoes of their own potential future research participants. From an ethical perspective, this would surely have also made ethics more real for the students, as they could better empathise with the position of prospective research participants having been 'subjected' to a research study themselves, including seeing in practice the need for ethical approval being sought (BERA, 2018). I would call this experience participant learning – potentially a subset of active learning within the specific context of research methods education, or perhaps a distinct form of a pedagogical approach in comparison to the other student-centred approaches identified in extant research in relation to the teaching and learning of research (see Healey, 2005; Kilburn et al., 2014).

I never measured whether this teaching method improved the students' performance or understanding of the course content, so I obviously cannot comment on that from an empirical point of view. From an anecdotal point of view, I believe this worked for the students – and the data that was collected enabled some rich discussion in class allowing for further clarification of concepts and methods. Healey et al. (2010) found that students expect the educators to share their experience of research, and where they fail to do so, students may be disappointed. Though such sharing of research involves only a passive experience for the student, via becoming aware of research. What I did arguably falls more into the active experience category, as my students were involved in the research process (Healey et al., 2010), albeit only as research participants not as active research

producers. For myself, this obviously allowed me to collect data for my own project. In many ways this was a win-win situation: data were collected for a project while teaching a course (so no additional resource, i.e. time, was required for data collection) and I was able to use the data for improving the course and student comprehension (through the one-minute paper philosophy), as well as to demonstrate participant recruitment, ethics issues, data collection and data analysis, all within one project/course.

The method of teaching research methods that I have outlined in this article is not underpinned by research methods educational literature, nor is it a case study evaluation of my own practice in using a pedagogical intervention, as often found in research by pedagogic teachers (Nind & Lewthwaite, 2018), as I did not evaluate the practice. Rather, the method is part of the 'trial and error' approach (Earley, 2014) – in effect, an exploratory approach to teaching research methods via students being participants in research. What I have tried to do with this paper, is outline a teaching method that can be applied in teaching research methods, albeit needing empirical research to establish its effectiveness in comparison to other more established teaching methods in research methods courses (e.g., active learning, learning by doing, experiential learning), and I have tentatively proposed it as an entirely new approach (participant learning) to teaching research methods.

The structural constraints of teaching the course, and issues within higher education more generally, played a significant role in this course. I was forced to reverse engineer the learning experience, by being asked to teach an existing course (i.e., inheriting it) rather than being asked to design a course for a specific student cohort by considering their specific learning needs and my experience. This is certainly commonplace in higher education, the notion that you get 'lumped' with courses, sometimes such you feel you have little expertise in. There were several aspects in which the learning space I created was compromised or complicated by external factors, including: lack of time; (perceived) lack of research methods expertise; working with an inherited course (including course name, learning outcomes and assignments); having a limited literature base on the pedagogy of research methods to draw upon; and having no community of practice with other research methods teachers where sharing of experiences could take place. These are just some of the structural issues that may prevent educators from designing and delivering truly student-focused courses. In this course, I was able to apply the participant learning approach within these structural constraints, without 'disrupting' the constraints, but on the same time being able to create a more student-focused course.

I used this method in the way described until Covid stopped face to face teaching. At that point, the structural constraints were disrupted, and I was able to fully redesign the course as I saw fit. I continued with this participant learning approach in the online environment. The challenge at that point became one of engagement (or lack thereof) in online classes and in online surveys (McKenna, et al., 2022; Weissman, 2022): 'additional tasks' (which this would have been perceived as) were less attractive, so it became harder to collect enough data to meaningfully conduct any kind of analysis to illustrate the process to students.

The method I have described in this article, or variations of it, could easily be applied in any research methods course, but equally the idea of it could be modified to fit other courses and scholarship projects. I tend to, where possible, now try to build my scholarship projects into the course designs, so that participation is not seen as an 'add

on' by students, but an integral part of the course learning and teaching. This is also far more organic than tagging a scholarship project onto a course you have inherited, and is easier to implement as an educator, though this is naturally not always possible for educators to achieve. How building scholarship projects into course designs is applied in practice obviously also needs to be carefully considered from an ethical point of view (BERA, 2018), to ensure that all participation can remain voluntary. The success of this approach is dependent on student participation which can be variable. I have experienced this variability in this course during Covid, but also in other scholarship projects in other courses. However, when appropriately structured and signposted, this approach can be beneficial to all involved for learning, teaching, and scholarship.

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