

Teaching research methods: pedagogy hooks

Hello, I'm Melanie Nind and welcome to this National Centre for Research Methods video on teaching research methods. This is the second video in a series on this theme. The first one is around the methods that we used in our pedagogy of methodological learning study to really begin to understand and talk with and generate some evidence and pedagogical culture around the teaching of research methods. This video, the second one, is around just sharing some practical guidance with you around two core themes which come very strongly in our findings. One of those themes is around pedagogical hooks - the kinds of things you can use, and I'm assuming you at this moment is a methods teacher, a teacher of methods in the social sciences. You may be teaching quantitative methods, qualitative methods, mixed methods, whatever, but whoever you are you're likely to have some kind of pedagogical hooks that you use. Things that you do to connect your learners to your subject matter, to the idea of the skills and the competences and the understandings that they need to develop. And if we multiply that, and our study you know involved over 70 methods teachers, over 80 methods learners, really trying to probe how people go about their craft of developing methods competence and knowledge and expertise, then then we begin to understand these pedagogical hooks. So, part of the video is about that, and the other kind of angle on this video in terms of practical guidance is the theme within our data around guidance for teaching very diverse learners. So, the to join up obviously, we have some pedagogical hooks for hooking in very diverse learners.

All of this is available in papers that we've written recently: Hard to teach, Methods that teach. We have QuickStart guides in NCRM, and we have this series of videos.

So, let's think first of all about this diversity challenge. Probably the most recurrent theme amongst things that methods teachers told us about the challenges they faced was that the learner population that they work with is very diverse. They're very aware of this. That as a methods teacher we're often faced with people from different disciplines, different kinds of levels of background and preparation, there's often a cry that I'm take teaching people who are very ill-prepared alongside people who are very experienced. And you know, trying to work with that diversity within one kind of classroom setting or online setting, lab setting, it is quite

challenging. But we have worked with this idea in the project of teachers' craft knowledge, and this is the knowledge that we have about what methods teachers do, why and how they do it, and this includes things about what they know and what they believe. So, it's craft knowledge, is pedagogical content knowledge, it's very geared to particular methods, but also geared to this challenge in this case of diversity.

Now if we bring together pedagogics and the diversity challenge, what we see is that methods teachers have either very practical solution focused pedagogy we've written about and thought about in this study, and this is their strategies, tactics, that teachers develop to address particular challenges, in our case for today the diversity challenge. But also, we're aware and we've been shown through our data that methods teachers have very holistic approaches, so their pedagogy cohered it's not just around what faces me now was the challenge, but cohered around a set of pedagogical principles, or some values, and this video will cover both of these practical solution focused and holistic approaches.

So let's start with some of the practical strategies that we have found, and our participants in the study have helped us to generate data around and to understand. Some other the challenges are around challenges that are presented by the learner, some of them are challenges presented by the subject matter itself. If you're teaching some very advanced method, or a method that involves deep levels of reflection and reflexivity, then that subject matter itself is challenging, alongside the challenges presented by diverse or variously prepared learners. And then we have the challenge of course of the gaps in our own knowledge, and the videos in a way are about helping us to address those gaps.

The idea of the pedagogic hooks in relation to the challenges, if we think about the challenge of learners who are very diverse, what we need to do is find a way of reaching out and connecting to every one of those diverse learners, and a primary kind of way of doing that is about getting learners interested and connected to, not just research methods but to data. A common theme in our data is that methods teachers absolutely work with the idea that data can tell you something interesting. John McInnis, one of our expert panellists talked very much about this. Data can tell you something interesting. That's a way of hooking our methods learners into the particular method that we want to teach them. What kind of data does this method generate? What's exciting about that data in terms of addressing social problems? Our participants also talk about starting with

students' interests, working with their interests. Whether it's interested in solving a problem, interest within a particular discipline, or interest to do with their own research question. So, we've got these hooks, these starting points: the data or the students interests. We also have a collection of data from our study about the pedagogic hook of language. Now some methods learners are excited by, and some are really put off by, the kinds of language that's involved. The terms, the specialist's terminology involved in a particular research method. And we know that some of our methods teachers work around the language challenge and the diverse learner challenge by developing non-technical explanations for the things that they do. WP Vaught, one of our expert panellists has really developed a whole range of strategies around non-technical explanations. But several of our participants, Andrew Gilman I think was another one, who talked about sometimes we have to think about learning a research method as learning a new language, a foreign language, and so actually enabling people to access the language of the method is a way of establishing a pedagogical connection point. So, we have language, but we also have visual metaphor. Lots of people work with the visual elements of their research method and I'll come back to that at the end of this video.

Another strategy our methods teachers work with, and you might want to think about, is finding themes that work across very different audiences. Johnny Saldana has talked to us about this. You know, you can have psychologists, educationalists, sociologists in a room, but they might be interested in identity. And if they're all interested in identity they're probably all interested in their own identity. So, can you generate data using your research method about their own identity. These probably aren't things that are completely new to you, but it's nice I think if you're a methods teacher to be able to say ah, that thing that I do, other people do, and they do it in this way, or maybe I can do it in that way. That's the idea of the project and the videos and resources coming out from it.

I suspect any methods teacher watching this video would do lots of kind of monitoring the involvement of the learners and how they're keeping pace. This is one of the strategies that people have talked about. They might be able to monitor learner's involvement visually through their body language, through scanning where they are. I know people will walk around and look at where people are out on the computer screen when they're looking at web or digital learning spaces. All of that is really helpful but some people I think do less of it than they might in terms of monitoring involvement. There's also the pedagogic hook of using very experienced learners in the

room to be co-teachers with you. I think if you're an inexperienced methods teacher having experienced learners in the room can be a bit scary actually, and you're kind of like oh, I don't want this person to be knowing more than me. But a kind of methods teacher with nous will realize who those experienced people are and use them, use their expertise, bring their expertise into the room. Say give me an example, how have you done that, what's gone on in your project, with this method. And the methods learners we've talked to have told us that they really appreciate that actually - having their expertise valued, but also you know, being able to engage with the expertise that's in the room, and that doesn't just come from the teacher.

I could go on and on, just listing methods, listing pedagogical strategies and tactics that methods teachers use, but one of the points of having a research project like ours is to be able to step back from the data and be able to say well what do what does this list of things tell us? How can we group these things together to give us a kind of analytical frame on it. And I suppose that the analytical frame I would give you on the list I've just been kind of going through is that those strategists by and large are student-centered. And those strategies by and large involve teaching with, through, and about data. And so, I think if you can think of those as organizational frames they can give you a means of saying okay, how can I be student-centered in this scenario which isn't automatically set up to be student-centered? If I'm teaching in a lecture theatre, I've got a hundred of you in front of me, how can I be student-centered? You know the default position is I can't, I've got to become suddenly teacher centered. But once you begin to understand and appreciate the importance of student-centred, then you can begin to think about how do I use student centered-ness with big groups in new settings.

I introduced this idea of teaching with, through, and about data, and data is very strongly a pedagogic hook within our study. And the transcripts that we've poured over, in the videos that we've looked at, and the diary blogs that we've been through, and it's very clear to us that as a methods teacher you can choose to use your students own data, you can choose to use your data as a teacher and a researcher, or you can choose to use archive datasets. There are pros and cons with each of those, and this is what we begin to develop I think. With the more experience we have we get a better sense of which of those types of data is going to work better with each method. But one of our research participants who's been teaching for a very long time was absolutely adamant that nothing works better than

hands-on work with something that they're interested in, and data that they're interested in. In terms of working with students own data, obviously that's really engaging, in that it's about me, my project, my interest, so you've immediately got that point of connection. But methods teachers will tell you, and they told us as well, that there are all kinds of risks with using your students' own data. It might not be very clean data, very pure data, very usable data. That data might be full of ethical challenges. If you just say to students bring your data along to the next session and we'll work with your data, often they will bring massively too much data. And so, you know, the strategies you can develop when you're working with students own data is that you can ask to see that data in advance, look at it in advance, perhaps not use every student in the rooms data, but data from some of them that's going to really work. Clever methods teachers I think use their use their own data quite a lot in their teaching. One of the advantages of your own data, and I'm using my data in this teaching, but one of the things about our own data is that we tend to know it well, we tend to know the strengths and weaknesses of it, we tend to know the teaching points that we can make through our own data. What we don't necessarily appreciate is how much learners like our use of our own data. But learners in our study said that they're really alert to, and really value teachers' narratives about how they generate their data, how they analyze their data, and their narratives about going wrong. The things that happen behind the scenes. The story behind the findings that you don't always get in methods journal articles or any kind of journal article. Learners really appreciate that, so I think one of the things we can gain from this study is an appreciation not just of the advantages of using student's data but using our data too. And archived datasets, they're there for us to use. They're very powerful. When we think about using an archived data set, and we think about the diversity of the learner, that leads us to question, is this data set very male-dominated? Is this data set going to work for people across all of these disciplines? So, having that student-centered lens on our idea of working with data I think will help us as methods teachers when we're thinking about which data set am I going to use to teach with, and through, and about.

So, I've talked a lot in this video about strategies, and shared some of the strategies. In a way, trying to stimulate discussion for you with your teaching teams. I want to end really by talking about more holistic approaches. We can have a whole load of strategies, but as we as we get more experience with those strategies, as they begin to make more sense to us, they can cohere into some kind of holistic approach. And I'm going to

talk about two holistic approaches, and they both work with this idea of the challenges that our diverse learner population present to us. One is a visual approach, and Chris Wild from New Zealand who teaches statistical methods has absolutely developed his own holistic approach to teaching stats in a visual way. And this isn't just this isn't based on a notion that all learners are visual, or that all learners however diverse they are will cope with the visual. It's based on the idea that stats can be made teachable through the visual. So, he works with visual metaphors, and he works with the idea of if we can see it, we can then begin to, if you like, back-fill with all the technical things that the student needs to know and understand and become competent in. But this visual is going to be a way into that, it's an access point. Chris Wild talked to us very much about the kind of huge cognitive challenge that a methods learner is faced with, and that methods learners who talk to us were very aware of that cognitive challenge. Often when they're in lectures, quant methods lectures, or workshops, or labs, they were absolutely aware of 'I have to keep up, I have to keep up, because if I miss something then I go go off track I lose the whole thing'. But this visual approach is giving people a visual anchor, a visual reference point, but also, it's about saying that the visual can give us a kind of a means of getting from here to there in the shortest possible way through this visual prop. I can't do it justice now, I don't want to. All I want to say in this this video is that sometimes if we've got a hunch, if we've got a theory, if we've got a way of doing things that we can we can turn all those little bits and pieces that we do into some kind of holistic coherent approach. The other example I'll give you comes much more from teachers of mixed or qualitative methods, and this is this idea of a standpoint approach. In our study where we had pedagogical leaders talking to us Sharlene Hesse Biber, Begel Chalisa, Amanda Coffey, various people talked about trying to understand the standpoint of the researcher, the standpoint of the discipline, the standpoint of the method, to bring those into dialogue. And this is about the deep reflective and reflexive work that we need to do as a methodologist. That we can't assume that methods don't come with a whole load of values and assumptions and things within them. I think it's Sharlene Hesse Biber who talks about her mixed methods classrooms putting people together in pairs, learners together as in pairs, one who's got more of a background in quants, one who's got more of a background in quals, getting them to work together. But starting from understanding each other's standpoint. So again, I can't do it justice - read the papers, go and look at what we've written about this, but also, I would encourage you, as you switch off the video, think about, you know, could I use visual more? Where do I use standpoints? Could we as a team kind of do some more

work around standpoints? Could that work as an approach for us.

So, recapping and pulling this together, these videos that we're making for NCRM, these aren't methods that are giving you tips on how to teach methods. They aren't even you know I wouldn't never want them to be directive about you should teach methods in this way. We haven't in them pedagogy of methodological learning study, we haven't sought to find out what is the best way or the most effective way. What we've sought to understand is all these different ways, and what brings them together, and how we might as a community of methods teachers really understand our pedagogy a little bit better. And I would want above all out else for us to be able to face a classroom of very diverse methods learners, and not see that diversity as something that's just impossible or too challenging for words, which makes us retreat to a very safe space, a very rehearsed and familiar space. But to see the diversity of methods learners together with the evidence from projects like this one as an absolute resource to say how can i how can I use that diversity in a rich and creative way, so that that diversity is a resource within the methods classroom.