Emotion: A barrier or a tool in learning methods?

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In 2023, colleagues at the University of Glasgow (McEwan et al., 2023) published a fabulous article about how Statistics students are challenged by maths anxiety. These are not social science students, but those who have applied to, and been accepted to study in our School of Mathematics & Statistics. Anxiety then, could be understood as a valid, even universal emotion felt by people learning the skills to harness data. As educators, we have a role in helping students accept that learning difficult things may trigger anxiety (amongst other emotions) and this is part of the challenge of learning. As an educator in the social sciences, many of my students have not chosen to work with data often not appreciating that this is a core part of their degree, and so emotions often including anxiety manifesting in reluctance, frustration and feelings of failure. If we can help students name and surface their feelings, then we have space to provide strategies and reassure them that the challenge can be overcome.

It occurred to me, and this piece aims to argue, that we don't talk about emotion enough in methods learning, and the vacuum is fertile ground for negativity, impacting many students. In turn acknowledging emotion helps us examine where it comes from, remove the negative emotions that can become a barrier, and focus on positive emotions that can be used as a tool.

In part, the case I am making is around the framing of emotions. The alternative is to make methods learning less difficult and while I champion effective pedagogies to make methods learning accessible, University-level courses will always require a degree of difficulty.

A rush of adrenalin can be interpreted as an incoming crisis or exhilaration depending on the context. If we do not discuss emotion, within our academies and classrooms, we are not allowing students to practise interpreting the painful parts of learning as a challenging opportunity, rather than as harmful. In turn, emotion is part of doing research, we often feel passion for our chosen field, joy when learning works, trepidation as we submit our work for peer review. This piece will attempt to capture some of the emotional resistance experienced by

students as they learn methods, followed by how acknowledging the emotional quality of the learning experience can help sustain engagement in methods learning.

Teaching methods is concerned with equipping researchers with their toolkit as they become practitioners. Learning how to work with, and harness emotion is a key skill particularly where data relates to humans. For example, many ethics committees would scrutinise a submission that admitted that the topic may trigger signs of distress amongst participants. There is a clear distinction between distress triggered by an incompetent researcher (bad) and that triggered because the original experience was emotional, and that recalling that trauma/event often requires emotional storytelling, and this is ok if the participants are fully informed, fully have the right to decline to participate and/or withdraw, and the researcher is competent. But where does this competency come from? If it is unethical to allow a student/new researcher to engage in emotionally difficult research because we are unsure of their competence, how do they develop competency? In turn, an ethics committee that is shy of emotion are also neglecting the ways we use emotion, for example, to build rapport at the start of an interview or focus group. Equally, how do we know if a researcher working with numerical data has the emotional resources to work with numbers that capture distressing experiences, such as reporting the experience of victims of violence, war crimes, and human rights violations?

As I have contemplated how we help students learn to practise with emotional data, I have also considered whether we can help students learn to acknowledge, and use the emotions, for example anxiety, that they experience in learning methods.

Emotion is not particular to methods. Yet there are a number of distinctions to what and how methods teachers teach, that can help students embrace emotion and this can help them in their disciplinary learning too. For many students, acknowledging that learning is emotional, is experienced as a lightbulb moment. In my experience, teaching across qualitative, quantitative and theory courses, teaching undergraduates, postgraduates and colleagues, there are five qualities of the emotional response to methods learning that require attention, the remainder of the piece will explore how we can support students who resist the learning opportunity:

Predisposition: Learners often have an emotional reaction to learning methods, this reaction is often negative, pre-dates the first lecture and manifests as resistance.

Disruption: They way methods educators teach, is a disruption to how students usually learn, and this undermines their capacity to predict how the time they invest, will return the grade they seek.

Futility: As students progress in their methods learning they understand how all research is limited, from embedding error into algorithms to failures to recruit as planned. In turn, students become aware a) that the research they learn about is also limited and few facts actually exist and b) their educators are fallible. This is a different type of disruption. Some students have argued that interpreting as learning research methods is futile because all research is limited.

Urgency: students can feel untrained as they approach their dissertation/independent project, and this is exacerbated if their chosen topic aligns with lived experience because they view their work as urgent and requiring excellence, and it can be tough to separate the success of the project from success of the self (Greenwood & Ferrie, 2025).

Legitimacy: All of this combines to leave students contemplating an independent project when they don't feel ready to be the creator of knowledge, they do not feel that they have the authority to say what is true.

As a methods educator, it has helped my students to name and claim these emotions. As a collective, educator *with* student, we can reflect that whatever we want to achieve, is on the other side of fear. Achievement requires a challenge. Learning is disruption and cannot be acquired neutrally.

Normalising the disruption is key and needed when teaching methods because the learning challenge is often greater for many students, than disciplinary learning. It helps to spend a little time exploring why they are predisposed to fear, resist and/ or avoid methods learning. In the social sciences, most students come to methods learning as a core subject, that is, it is a requirement that they complete a methods course(s) to qualify for their degree. Courses are usually core where they are seen as of critical importance, a defining aspect of what it means to be a sociologist, or an economist or a political scientist for example. Yet students are rarely told this by their discipline, it would help us, if disciplinary colleagues encouraged students to embrace opportunities to learn methods.

Where universities have opted for methods courses to service a range of disciplines then, there is a paradox, of the disciplines recognising the inherent value of learning methods for disciplinary practice, but the institution signalling to students that there is a disconnect between methods and disciplines. Such large classrooms including hundreds of students cannot claim to be interdisciplinary, at best they can be described as pan-disciplinary (Ferrie et al, 2022). Large lecture theatres are tough places to learn, particularly if the content is novel. Understandably perhaps, students have feelings about methods then, often providing feedback that the learning was irrelevant to their degrees despite the core status of the course. It is a little difficult to put names to these feelings, but I have encountered students who are frustrated at having to do a course they see as beyond their disciplinary interests, and this often manifests as anxiety, and claims of futility. Such negativity is avoided where class sizes are smaller and are linked to disciplines particularly where the methods learning is foundational.

Another aspect contributing to anxiety is learning something or using tools that they have struggled to harness in the past. This is often associated with using numbers and we spend a good amount of time when working with quantitative data to show that we are pattern seeking, rather than directly following on from high school mathematics. Working with all forms of data, we acknowledge the strain of learning new terminology as well as learning new skills, at the same time as engaging with new learning strategies (see the pine and the oak tree metaphor, Edson Ferrie & Spreckelsen in this resource). There are also new rule systems and bureaucracies such as ethics which are often limited to a lecture but could be a course in and of themselves. There is so much new knowledge that we present as vital knowledge – you must know this – that their disciplinary classrooms have barely touched upon.

It has helped our students to guide them from the first learning opportunity to the assessment, to help them see that while the assessment is also very different to what they are used to, we are testing their application of skills developed during the course. Our Intended Learning Outcomes echo that this is an introduction, and that we expect them to perform accordingly. Thus, we are clear, that there is time to practise within our classrooms, that is why we have labs, or we have practical activities within tutorials. Reassurance is needed. Students must be encouraged that the assessment isn’t going to ask them to demonstrate skills not built into the course, but a culmination of all that they have practised. Reassurance only works because we have talked through their emotional response to learning methods, we have named their

feelings around futility, disruption, resistance and urgency, and they can begin to claim some legitimacy knowing that we are testing them at the appropriate level.

By acknowledging the emotional challenge of navigating the tension of building competencies while feeling incompetent, we can help students take a rational approach to learning methods, of building a case that their work has rigour, and helping them practice how they demonstrate this to themselves and to others. Built into the arguments here then is how we reassure students that the learning will build towards competency, and we hope, confidence in how they work with data.

At the start of the piece, I mentioned framing, and how by being upfront that the learner's experience may be emotional, we can invite them to frame this emotion as a positive – it's exciting to have a challenge, thrilling to overcome the challenge, affirming to succeed. Learning methods after all, is still learning, and the best learning is disruptive.

References

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