

## ***Developing a personal project: chemistry and chemical engineering students' formation***

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### **Abstract**

Bruce Macfarlane “afflicts the comfortable” in his think piece (to repurpose Mr Dooley’s phrase): are we, as qualitative researchers, perhaps a little too quick off the mark to claim the moral high ground of criticality in our research methodologies?

Some of the central questions in our field are around what higher education is for, and how students think about their academic and social journeys during a crucial stage in their lives.

The development of potential (professional) selves as an aspect of a personal project is not well understood, but researchers have shown that while growing familiarity with disciplinary knowledge plays a role, there are other factors at work in the process. Ibarra (1999) argues that engaging in professional activities and developing social networks linked to the potential profession play a role. Sense-making activities (Ibarra & Petriglieri, 2010) and narratives that reconcile external messages about the professional role with internal ones around the individual’s needs and ambitions are important.

Students enter higher education with rudimentary ideas around what they value about what scientists and engineers do, and how they present themselves in the world. The period spent at university is often a meaning-laden transition as students grow in their understanding of their disciplines, themselves, and the world they live in. In some instances, significant formational events influence the trajectory of a student’s personal project. In this paper we explore what a group of STEM students from three countries at six institutions over four years value in terms of their personal priorities, shifts in direction for some, cementing of identities for others and, for some, letting go of previously held certainties. We consider the following questions:

- How do students make sense of shifts in what they view as valuable in their personal projects?
- What is the role of formational or seminal experiences in the trajectory of personal projects?

Our paper in this work-in-progress account explores the varied ways in which STEM students speak about what matters to them about the way they position themselves in relation to their discipline. The longitudinal nature of the study and extended engagement with student projects contribute to rich findings. However, we remain challenged by Macfarlane’s (2022) think piece to examine our (ready-to-wear) ‘garment’ as qualitative researchers and the claims we make for authenticity and criticality in close-up research.

### **Keywords**

Personal projects, sense-making, professional selves.