



PTAS Project Report (for REGULAR PROJECT GRANTS)

Project Title: Exploring Divergence and Congruence Between Learning and Assessment Practices in University and Professional Workplaces

Project type (delete as appropriate) : **A**

A Research Project (research focus on particular dimension of teaching, learning, assessment)

B Innovation Project (introduction and evaluation of an educational innovation, usually taking a practical approach)

Principal Investigator : Tim Fawns

Schools/department : Edinburgh Medical School: Medical Education

Team members (including Schools and Departments) : Gill Aitken, Dai Hounsell, Tamara Mulherin

For further details, please contact: Tim Fawns (tfawns@ed.ac.uk)

Project teams must submit a report within 4 months of the conclusion of their project.

Copies of dissemination material (eg journals/newsletter articles, conference papers, posters should be listed and attached (separate to the word count). The brief report will be published on the IAD web pages.

Report (maximum 1500 words)

What did we do?

We ran 4 focus groups with educators and postgraduate students from professional subject areas (medicine, law, architecture, dentistry, clinical psychology and careers counselling), exploring the relationship between student practices around learning and assessment at University, and professional practices in the workplace. We conducted a thematic analysis, informed by practice theory and a sociomaterial perspective, in order to generate insights around how important forms of learning within the workplace are, or are not, supported through university curricula.

What did you find out?

Workplaces are complex, interdisciplinary spaces, where practices are emergent and cannot be predetermined. In contrast, much professional education is designed as outcomes-based, characterised by standardised, objective measurement of performance under controlled conditions. At the same time, all of our participants turned out to have multiple roles or perspectives within education, as practitioners, current educators, and current or past students. From their contributions, we generated a “seamful” account of educational and professional settings, manifested through assessment, regulatory bodies, technology and materials. Table 1 gives an overview of our four identified seams.

Table 1: Seams between academic and professional settings



Seam 1: Between formal syllabus requirements and adaptive, everyday practices	The objective certification of competence and the accomplishment of learning outcomes can be seen as an attempt to patch together settings by orientating academic efforts towards the learning of what is required in practice. This could bring stability and consistency, but at the expense of authenticity.
Seam 2: Between containment and complexity	Particularly in professions with tightly-structured career paths, many forms of assessment seemed to remove situated aspects of performance in favour of abstract, procedural, or objective ones. However, the approach taken to teaching, learning and assessing competencies could highlight ways in which student performances in academic contexts were of a different nature from professional ones, reflecting different imagined realities.
Seam 3: Between abstract and embodied knowledge	Participants' responses in all focus groups showed that materials were essential elements of professional practices, and of what it means to be a practitioner. At the same time, materials were typically backgrounded by the participants, or reduced to a mediating role, rather than being an essential part of learning. In many cases, the material elements of practice only became foregrounded in moments of rupture, where the seamless interface between infrastructures broke down. Materiality and embodied knowledge were represented very differently in academic assessment from the reality of professional practice.
Seam 4: Between technology use and professionalism	The pervasiveness of digital technologies within both workplace and university practices was an important theme. However, sometimes, there were important economic and logistical barriers to authentically integrating profession-relevant technology into academic assessment. Other times, the capacity and flexibility of the university outstripped what was available within practice settings.

Each seam represents ways of patching contexts together (e.g. accreditation stitches requirements of professional practice into educational approaches). These “seams” are more dynamic than “boundaries”, because they are contingent on the work of people, in conjunction with materials and devices, to align and make sense of multiple contexts (Vertesi 2014). Nonetheless, they can be created in order to include or exclude certain kinds of activities (e.g. the bracketing off, or engagement with, complexity).

Exposing such seams can reveal the limitations and possibilities of classrooms and workplaces as sites of professional learning, and, conversely, how hiding the complexity of professional practice may be counterproductive to developing students' adaptive capacity to successfully negotiate practice settings.

How did you disseminate your findings?

Our findings were presented at the 2019 [international ProPEL \(Professional Practice, Education and Learning\) conference](#), Sydney. Following this, we have a journal article under review for a



special issue of *Studies in Continuing Education* connected to that conference (process delayed due to COVID-19). We have also spoken about it in many informal conversations with teaching colleagues within and outside of the University, and the seamless design idea has informed further research and scholarship within the team.

What have been the benefits to student learning?

The project fits within the wider theme of employability, and is informed by literature on sustainable assessment. It has informed thinking on the MSc Clinical Education around how assessments can be designed to support the kinds of unpredictable learning that will be needed in our students' future workplace settings, and it feeds into the content of the Assessment, Standard Setting and Examination course on that MSc. It is also influential in the design of a curriculum for a proposed PG Certificate in Simulation Education in the Medical School, and in the design of a 10 credit course on "postdigital analysis" for the Education Futures pathway of the Edinburgh Futures Institute's upcoming hybrid MSc offerings.

How could these benefits be extended to other parts of the university?

Our research builds on existing links between the Centre for Research in Digital Education and Medical Education in the Edinburgh Medical School, considering both engagement with digital technology and professional practice in order to explore how learning and performance are realised in complex and dynamic environments. These insights are applicable to all professional education subjects and have informed the design of two CPD courses for lecturers across the College of Medicine and Veterinary Medicine to help them understand how to teach and design online courses in practice-oriented subject areas. Considerations of our seams—relating to adaptivity, complexity, embodiment, and the integration of technology—could also usefully inform discussions, at programme-level and higher, to complement dialogue around graduate attributes and sustainable, programme-level outcomes.



Financial statement (please delete as appropriate):

This project has utilised the funding awarded to it by the PTAS adjudication committee and the Principal Investigator or School Administrator appropriate can provide financial statements showing the funding usage as and when required by the UoE Development Trusts who may require it for auditing purposes.

Please send an electronic PDF copy of this report to:

Email: iad.teach@ed.ac.uk