
Experiences of online Change Laboratory research-interventions in miniature in doctoral education

Brett Bligh

*Educational Research, School of Social Sciences, Lancaster University, United Kingdom,
b.bligh@lancaster.ac.uk*

Abstract: This paper addresses the issue of fostering expansive learning in doctoral education using a Change Laboratory-in-miniature approach. Doctoral students face many problems when understanding activity-theoretical methodologies such as the Change Laboratory. While cutting-edge and promising, these are not easy to grasp for newcomers. In a practice context increasingly prioritising timely completion, such obstacles incentivise students towards adopting conservative, well-understood research approaches.

This paper explores how the Change Laboratory in miniature can provide doctoral students with a Change Laboratory experience, but emphasises that the success of this endeavour depends on such projects addressing genuine practice problems experienced by the doctoral students in their own lives. Two miniature projects are considered—each conducted online, over a few weeks, with globally distributed cohorts of distance doctoral students. The projects' objects, selected by the cohorts themselves, respectively concerned the informal mutual support provided by networks of online PhD students; and the use of Generative AI tools in academic research.

Keywords: Change Laboratory; activity theory; online intervention; doctoral education

Introduction

This paper addresses the issue of doctoral students experiencing expansive learning via the Change Laboratory methodology. The context of doctoral education is a nexus of intellectual and practical tension and possibility. The PhD is an intellectual journey of personal growth, where new researchers are forged individually and where the groundwork is laid for the next generation of scientific projects and epistemic communities—without which the latter would eventually wither through lack of generational reproduction. Yet the PhD is also a challenging time of crisis, with PhD students facing traditional issues of loneliness and intellectual uncertainty alongside challenges of financial difficulty, balancing research and paid work, and heavy pressure to complete within demanding deadlines. Against this context, there is an incentive for PhD students to choose “do-able” research projects using well-established principles and documented procedures. Cultural Historical Activity Theory (CHAT), with its reputation for intellectual ambition and a steep learning curve (Lémonie, 2025), can therefore seem an unattractive avenue. This is problematic, because CHAT is well-placed to address contemporary and urgent societal challenges (Engeström, 2016)—and it is often such challenges which motivate people to attempt PhD studies in the first place!

The basic idea discussed in this paper is to give PhD students the opportunity to participate, voluntarily, in a Change Laboratory-in-miniature within a doctoral training module. Doing so can, it is hoped, help such students appreciate the nature and purpose of the approach, understand how such a research-intervention can be designed and might unfold, and experience using second stimuli (such as the activity system) themselves. Yet such an attempt faces difficult challenges, including those of choosing a suitable object for the work and restrictions on timescale and workload.

Notwithstanding the antecedents of expansive learning in classroom research (e.g., in mathematics in the Soviet era), most Change Laboratory projects do not address objects of formal education (Engeström, 2016). This work is part of my research agenda to bring the approach into contact with higher education (Bligh, 2024; Bligh & Flood, 2015), where its activist and interventionist approach (cf. Sannino, 2011) might serve as a counterweight to neoliberal managerialism. Prior projects have explored the use of the Change Laboratory to help university students relate classroom knowledge to work on placements (Snowden, 2018) and to encourage more agentic participation in questioning teachers and curriculum knowledge (Reid, 2019).

Two Change Laboratory projects-in-miniature have been conducted to date, conducted in the same training module in successive academic years. The module is delivered via distance learning to PhD students domiciled around the world who study part-time while working. For this reason, the projects are designed as an online Change Laboratory (cf. Spante et al., 2023) using a range of online digital platform tools (cf. Obexer, 2024).

A range of issues have proven important across these two projects.

Topic selection

The Change Laboratory-in-miniature should be oriented towards an object in which the PhD students have a direct stake and, ideally, personal experience.

In the first year, participants worked on an object of the informal mutual support provided by networks of online PhD students; and in the second year on the use of Generative AI tools in academic research.

Workshop design

Simple outline designs (cf. Bligh, 2023) were produced and discussed with participants. Five 90-minute workshops were conducted twice each (meaning ten workshops in total), to accommodate participants in different time zones). The timescale was around 8 weeks in each case.

Expansive learning actions

The projects aim to focus in turn on questioning, analysis, modelling, examination and process reflection (see Figure 1). Other expansive learning actions cannot be addressed realistically, given the timescale.

Technical instrumentalities

The workshops are facilitated using Zoom for video conferencing and Miro for collaborative knowledge production (see Figure 2).

Project outcomes

Participants are able to undertake many expansive learning actions successfully and produce interesting ideas for the ZPD of the activity they consider. Many go on to use CHAT (and in some cases the Change Laboratory) in their own doctoral research.

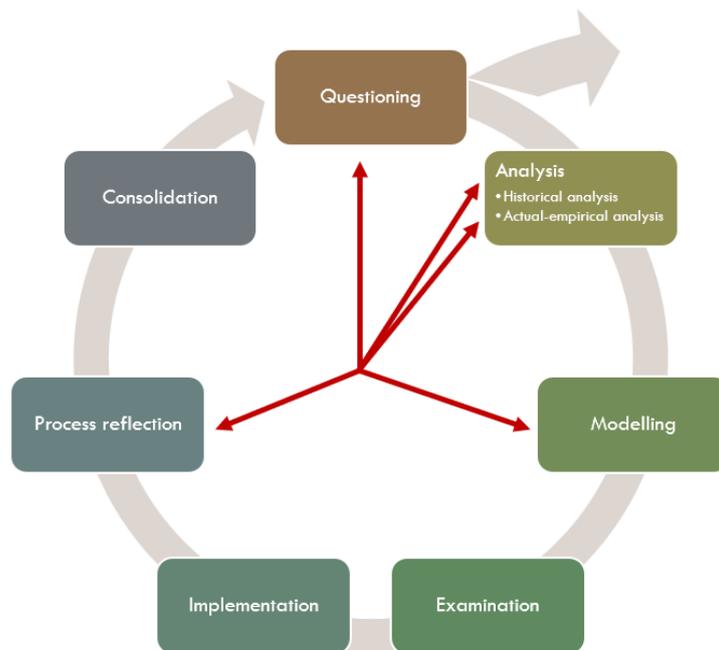


Figure 1 The expansive learning actions on which the Change Laboratories-in-miniature are able to focus.

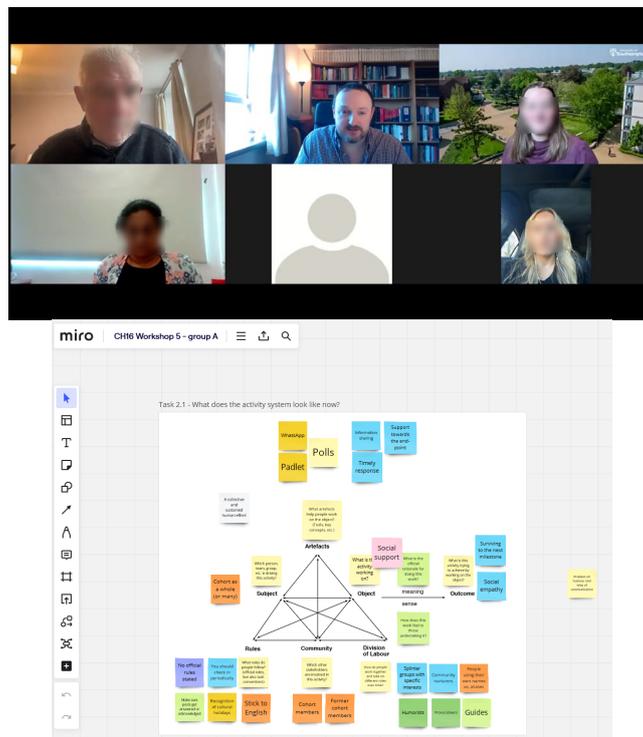


Figure 2 The use of Zoom and Miro for the online Change Laboratory workshops.

Difficulties

Difficulties arise from:

- time constraints and the need to conduct each workshop twice;
- sometimes from the nature of the Change Laboratory as an end-in-itself (despite the attempt to choose suitable topics); and
- from the lack of advance preparation and consequent inadequacy of mirror data.

Following my earlier conception of Change Laboratory projects as activity systems (Bligh, 2024), future work will seek to characterise these problems as contradictions in the activity system.

Acknowledgements

I would like to thank those members of Cohorts 16 and 17 of the PhD *e-Research and Technology Enhanced Learning* programme at Lancaster University who engaged with these miniature projects during 2024 and 2025.

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