

# Advancing cultures of innovation: the change laboratory as an intervention to facilitate agency and collaborative sustainable development among teachers in higher education

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To cope with the rapidly changing Higher Education climate, teachers need the agency to act proactively to initiate and steer changes to meet their needs. The results of this study indicate that transformative agency emerges when teachers are given the opportunity to analyse, envision and redesign their practice collaboratively with the help of mediating conceptual tools. This has implications for academic development, suggesting that activities providing a 'third space' for discussion and criticism of current practices is needed to support the development of agency thus creating a culture of innovative practice.

Keywords: Agency; Academic Development; Cultural-Historical Activity Theory; Cultures of innovation

## Introduction

Higher education (HE) institutions have expanded and diversified at an unprecedented rate over the last two decades in response to a number of powerful external factors (Henkel, 2016). Educational change and development is an integral part of HE teachers' professional lives (Vähäsantanen, 2015) necessitating the development and adaptation of teaching and learning practices in HE (Kirkwood & Price, 2006). It has been suggested that teacher agency is a key capability in the negotiation of the increasingly complex HE environment and development of innovative educational practices (Mathieson, 2011).

A potential problem with current academic development initiatives is that they are frequently instigated by management as a solution to a perceived problem or in response to performance targets (Murray, 2012). This approach risks resulting in approaches that do not promote the agency and engagement of participants in collaborative development activities (Voogt et al., 2015). In order to envision and implement sustainable academic development, teachers need to play an agentic role, developing the ability to question, analyse and shape their own practice (Haapasaari, Engeström, & Kerosuo, 2016; Sannino, Engeström, & Lemos, 2016). Understanding how agency emerges and how it can be supported is essential for sustainable academic development (Sannino, 2015).

This study describes a formative academic development activity aimed at facilitating sustainable agency among teachers. The intervention was in the form of a Change Laboratory (CL) (Engeström, Virkkunen, Helle, Pihlaja, & Poikela, 1996; Virkkunen & Newnham, 2013); a method for supporting participants in redesigning their work practices. The CL method was chosen as it has the potential to promote collaborative transformative agency among participants, in this case members of a teaching-team, through a cyclical process of analysing and solving contradictions in practice (Engeström, 2001; Engeström & Sannino, 2010). In contrast to design experiments, the specific problem to be examined in formative interventions comes from the participants themselves rather than external parties such as management or academic developers (Engeström, 2011; Engeström, Sannino, & Virkkunen, 2014). The focus of the study is on the development and sustainability of agency by the teachers (Haapasaari et al., 2016) where the outcomes of the CL intervention were evaluated after two years (Haapasaari & Kerosuo, 2015).

## Background

Prior to the intervention, the participants, who were teachers working on an online interdisciplinary programme, faced several challenges. The organisation of the programme spanned three departments across two faculties. Responsibility for quality assessment and improvement faltered due to its distributed nature. The lack of coherency across the programme was reflected in an impoverished vision for the quality of students' learning experiences and lack of development in educational practices and implementation of new technologies. A CL



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intervention was therefore adopted to support the development of collective agency among teachers on the programme and to resolve observed challenges.

The notion of teacher agency has long been a focus of international research, exploring teachers' active efforts to make choices to create a constructive learning environment for their students and themselves (Edwards, 2005; Eteläpelto, Vähäsantanen, Hökkä, & Paloniemi, 2013). In recent research into agency, different conceptualisations and characteristics have been introduced. These mainly focus on the individual and their competences rather than considering the wider context in which development takes place (Di Napoli & Clement, 2014; Mathieson, 2011). The type of agency conceptualised within CHAT differs from the dominant individualistic perspective. It goes beyond the individual to encompass collective agency, known as transformational agency. Transformational agency is closely akin to relational agency (Edwards, 2005). It emphasises the expansive transition from individual initiatives to collaborative actions to achieve change and is facilitated by interventions such as the CL (Engeström, 2011).

An issue that academic development faces is whether intended changes in practice are sustained after the intervention (Stes, Coertjens, & Van Petegem, 2010). Sustainability is often lacking as development activities are carried out in isolation of day-to-day teaching practices and fail to embrace context-specific needs or local community practices (Leibowitz, Bozalek, van Schalkwyk, & Winberg, 2014; Smith, 2012). Local contexts can act to enable or constrain agency depending on structural and sociocultural conditions (Leibowitz, van Schalkwyk, Ruiters, Farmer, & Adendorff, 2012). Hence an understanding of how contexts can support or hinder agency development is necessary when designing academic development that facilitates change.

In the present study participants of the CL are able to collectively analyse existing practice and collaboratively envision new ways of working in context. From this perspective, sustainability is understood as a collaborative, communicative and continuing process (Nocon, 2004). If sustainability is to be achieved, opportunities for participants to communicate, express their needs and suggest potential solutions are essential for the development and implementation of new practices (Haapasaari & Kerosuo, 2015).

### **Theoretical framework: The Change Laboratory (CL)**

The Change Laboratory builds on the theoretical framework of cultural-historical activity theory (CHAT) where the context for understanding human actions is the activity system (Leont'ev, 1978). From a CHAT perspective, change and development in activity systems are driven by historically accumulating contradictions arising within and between activity systems (Engeström, 2011). These contradictions act as driving forces of change, generating tensions that can lead to innovative attempts at development if participants have the opportunity to work collaboratively. By critically analysing disturbances as a part of a Change Laboratory intervention participants are able to develop an awareness of the causes and roots of contradictions, which in turn can facilitate the development of a solution through acts of questioning, modelling and experimentation (Engeström & Sannino, 2010; Englund, 2018).

Through direct engagement with the contradictions embedded in practice, the agency of participants is expanded, enabling new forms of collective activity to emerge. Discussions typically begin with individual initiatives and then expand towards collective efforts (Haapasaari et al., 2016). Haapasaari et al. (2016), building on Engeström's (2011) work, identified six expressions of participants' emerging agency. These include: resisting, criticising, explicating, envisioning, committing to actions and taking actions. The different types of transformative agency evolve over time, moving from resistance to taking change actions and from individual initiatives to collective agency.

### **Context and data collection**

Over a period of one semester the researcher, who was also the interventionist, carried out a CL intervention with a group of twelve teachers working on an online, interdisciplinary programme at a university in northern Sweden. During the intervention, which consisted of nine sessions of 90 minutes each, sessions were video-recorded and the recordings of activity during the intervention sessions were used as observational material in the analysis of interactions and discussions between participants. Semi-structured follow-up interviews were carried out with six of the original Change Laboratory participants after two years.

### **Data and analysis**

### *Analysis of expressions of agency*

The nine video-recorded sessions were transcribed and analysed by the researcher. Speaking turns containing expressions of transformative agency were analysed in detail using a category framework to determine transformative agency in conversations among participants (Haapasaari et al., 2016). These were coded according to the six expressions of participants' emerging agency proposed by Haapasaari et al (2016) and recoded by a second researcher until consensus was reached.

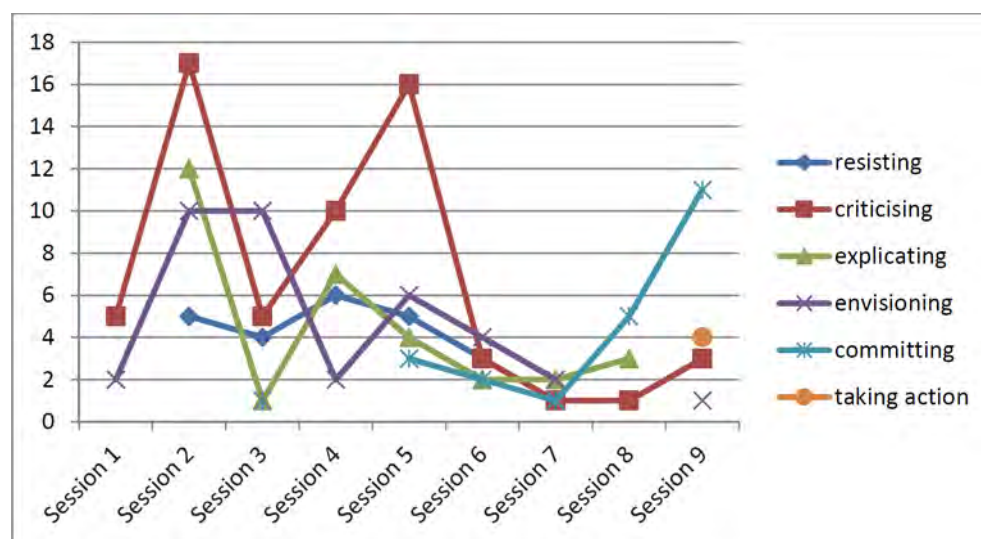
### *Analysis of follow-up interviews*

The follow-up interviews were approximately 45 minutes and were audio-recorded and transcribed verbatim by the researcher. Interview questions were semi-structured and participants were asked to reflect on the CL process and describe any changes and developments in practice occurring after the intervention. The transcript data were thematically analysed (Braun & Clarke, 2006; Creswell, 2007).

## Results and analysis

### *The emergence of expressions of agency*

Agency expressions were traced over the course of the intervention to examine the manner in which it supported the development process. Figure 1 shows the evolution and frequency of types of expressions of agency.



**Figure 1. Evolution of types of expressions of agency over the course of the CL.**

The overall picture of the evolution of agency (Figure 1) should be considered from the theoretical perspective underpinning the six types of transformative agency (Haapasaari et al., 2016). There is a development from expressions of resisting and criticising towards envisioning, committing and taking actions. Examination of the six types of expressions individually shows that resisting evolved following the model of transformative agency developed by Haapasaari et al. (2016). The highest frequency occurring in the first four sessions and disappearing in the final three sessions. As could be expected in the analysis of current practice, criticising was also at its highest in the first six sessions. It dropped significantly in session seven before rising slightly in the final session as questions concerning the division of labour arose once more. The drop-in criticisms in session three is an anomaly in this respect, caused by the participants' eagerness to begin work on a new model before analysis of the problem was complete. Explicating new possibilities and envisioning new ways of working evolved as expected although like criticising also dropped sharply in session three. Commitment to taking action followed the expected pattern, rising in frequency in the last four sessions, although expressions of taking action occurred only in the final session. In summary, the focus of the CL was on criticising and discussing problems rather than on modelling and implemented solutions.

The analysis illustrates how the participants' transformative agency evolves over time through discussion of problems and contradictions in the programme. This is a dialogic process where transformative agency is developed collaboratively and in interaction between participants.

### ***Follow-up interviews***

Analysis of the follow-up interviews after two years revealed a number of factors experienced that facilitated the development of transformative agency. All of the interviewees mentioned the opportunity to discuss and criticise practice over disciplinary borders as an important factor. Several interviewees also mentioned that being supported in the analysis of current problems and their historical origins was important. With regard to sustainability, interviewees reported continuity in the development activities of some departments but also discontinuity and breaks in the process of development for the programme overall. In the face of external pressures and constraints, work on the development of the programme halted. Contradictions between the institutional structure of the university and the autonomy of the programme acted to constrain the successful implementation of new practices developed during the intervention.

## **Discussion & Conclusions**

This study examined the evolution of participants' collective transformative agency in a Change Laboratory intervention. By collaboratively examining and analysing problems and contradictions within their local context, participants were able to change and develop current work practices. Initially participants expressed resistance towards developing the online interdisciplinary programme and to the CL process. However, through active engagement in the process, the majority of the participants were able to move through the cycle of transformative agency. They were able to identify and analyse issues to be changed and developed, create new solutions and to some extent take concrete actions to transform practice. The institutional context, its rules and policies, were however seen to act as barriers to the implementation of new practices on the wider scale of the programme. This has implications for the sustainability of development processes in HE, necessitating the adoption of a holistic approach to academic development that takes into account both sociocultural and structural contextual factors (Englund, Olofsson, & Price, 2018).

The use of the conceptual tools of CHAT in the CL forces participants to distance themselves from everyday practice, providing the means to analyse problems and creating a mediating social space to engage in dialog and discussions (Ellis, Gower, Frederick, & Childs, 2015). This enables a collective approach to solving problems in context. Both the practice of the individual and the collective community, in this case the programme, are developed. This builds a stronger culture of development and shared responsibility among participants (Haapasaari et al., 2016). As seen in the follow-up interviews, the CL sessions provided a neutral, interdisciplinary forum for discussion of the programme as a whole.

HE teachers need agency to act proactively to initiate and steer changes in their practice in an ever-changing and developing educational landscape (Haapasaari et al., 2016). In formative interventions, the focus is on working with the participants from their perspective with a developmental purpose rather than seeking to deliver findings or policy to be implemented in their practice. The role of the interventionist or academic developer is significant, instigating and supporting a collaboratively-led development process that fosters dynamic and progressive change (Virkkunen & Newnham, 2013).

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