

THE CHANGE LABORATORY AS A TOOL FOR COLLABORATION AND SOCIAL INNOVATION

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INTRODUCTION

The aim of this chapter is to present the potential of an activity-theoretical intervention method called the Change Laboratory (Engeström et al., 1996; Virkkunen and Newnham, 2013) as one tool to facilitate crossing boundary collaboration and collective creation of social innovations in organisations facing high complexity. We argue that the key characteristics of wicked problems identified by Ritell and Webber (1973), and as they occur at a systems level, can be addressed by this intervention method. We justify this argument using the case of the complexities of offender management and rehabilitation of mentally ill offenders in the criminal justice system. We present first the wicked problems faced in this environment and the underpinnings of the Change Laboratory intervention which may help us in unravelling these. We explore then the match first between the method and working with the different facets of wicked problems as well as social innovation. We conclude with some of the challenges that may face this method in practice.

THE WICKED PROBLEMS FACING INTERAGENCY COLLABORATION BETWEEN MENTAL HEALTH AND CRIMINAL JUSTICE

Recidivism rates are a typical measure of the success of the criminal justice system. These hinge largely on the success with which offenders are rehabilitated during their prison sentences and whether offenders receive sufficient support during their transition from prison back into the community. However, 20% of offenders will reoffend within 2 years (Fazel and Danesh, 2002). This rises to over 70% among certain groups (Cramer, 2014) (75% among males aged 25-44 years sentenced for theft) (Graunbøl *et al.*, 2010). This has both human and economic costs for the offender as well as Norwegian society as a whole (Nyström, Jess, and Soydan, 2002; Jess, 2005; Bakke, 2011).

The risk factors associated with reoffending include a history of antisocial behaviours, personality patterns and attitudes, antisocial networks, isolation from family and friendship groups, poor educational attainment and substance misuse. Mental health may play a role in the conduct of some crime but more importantly mediates the success with which offenders can engage with support offered to them by health, welfare and other services (Skeem and Peterson, 2011). This is of concern as around 92% of Norwegian prisoners are diagnosed with some form of mental illness (Cramer, 2014).

When addressing offenders' mental health, there is a need for flexible and effective partnership between mental health services provided by the county and municipality on the one hand and prison services on the other. Collaborations between the mental health and prison services can be problematic. There may be different interpretations across services when it comes for example to patient confidentiality regulations and different views of threshold levels for transfer of prisoners from prison into specialist mental health facilities. There are concerns about the distribution of responsibility for offender care across systems and concerns about other professionals failing to take responsibility for the offender as expected. Resource limitations, logistical issues related to travel distances between services and differing working patterns and poor attitudes towards the offender population all influence collaboration between services (Langeveld and Melhus, 2004; Hean, Willumsen, and Ødegård, 2017 ; Hean, Ødegård, and Willumsen, 2017). Although, contact between specialist mental professional and criminal justice professionals (prison officers who know the offender best) is important to better assess, diagnose and treat offenders, contact is low between prison officers and psychologists/psychiatrists in specialized mental health services. The greatest contact is instead between prison officers and nurses, social workers and other prison officers working in the same prison (Hean, Ødegård and Willumsen, 2017). Coordination between mental health professionals and prison officers is higher in prisons perceived to support collaboration actively. However, prisons are generally perceived to do little actively to promote or discourage a culture of collaboration with specialised mental health services. Lack of provision of psychiatric services uniformly within prisons nationally, means contact between prison officers and mental health specialists is often unlikely. Ways to facilitate "ansvargrupper" and other interagency meetings to take into account the

logistics and limited resources of both mental health and prison services is required. Improved use of needs assessment tools such as the health care oriented Individual plan, the new BRIK which outlines the needs and resources of offenders as means for re-integration, and Coordination units (Koördinerende Enheter) which coordinate rehabilitation, is also required to improve the flow of information between healthcare professionals and staff in the prison to assist in overcoming collaboration challenges and provide better conditions for inmates with mental health disorders.

The above challenges can be reconceptualised as typical of what is described in social policy disciplines as “wicked problems” (Rittel and Weber, 1973). Here it is maintained that social planning needed to improve collaborations between mental health and criminal justice systems cannot be understood from a purely linear scientific rational approach (A intervention will solve problem B). Instead, problems are complex with multiple causes, with services offering support or means of resolution that is often fragmented and spread across several disciplines. Working with offenders and across mental health and criminal justice service borders is a particularly complex adaptive environment where many elements interact with each other in often non-linear and unpredictable ways. The precise problem is something difficult to define and exists within an open system, influenced by a multitude of interacting influences. Multiple solutions may be available, but these are each difficult to predict, test or disprove and will vary in effectiveness depending on the context and stakeholder involved. As such, any solution aimed at improving reoffending rates, rehabilitation and interagency working will resist attempts to develop standardised care pathways, structured interagency meetings or service level agreements between organisations that promote uniform, one size fits all coordination of care across agencies.

The wicked problems facing mental health and criminal justice services makes them ripe for organisational change and social innovation. However, orchestrating direct contact and collaboration between mental health and criminal justice service professionals, in a system that often keeps them separate, is difficult. But collaboration, if achieved, would allow professionals from both services to synthesise their distinct knowledge bases and develop innovative ways of managing interorganisational working unique to their needs. This overlap

of distinct sources of knowledge is crucial in fostering innovation. It constitutes large stocks of social capital (the accumulative gain from membership of a social network). However, currently it often originates from a disorderly interaction between a diverse set of actors (Landry, Amara and Lamari, 2002 ; Vangen and Huxham, 2013 , Bourdieu, 1997). These disorderly interactions can challenge service leaders who should reconsider the leadership style and organizational structures they must adopt to optimise collaborative relations. (Willumsen, 2006 ; Willumsen, Ahgren and Odegård, 2012). We propose that these interactions do not need to be disorderly and that the Change Laboratory® is a registered trademark and an intervention that can facilitate and provide structure to these learning and transformation processes.

THE CHANGE LABORATORY ®

Change Laboratory (here after referred to as CL) is an intervention method promoting collaboration and innovation creation in organizations and at work. It draws theoretically from cultural-historical activity theory (Vygotsky 1978, Leont'ev 1978, Engeström 1987; Engeström et al., 1996; Virkkunen and Newnham, 2013) and is designed for supporting work practice transformation. Since the early 1990s, the CL method has been applied in a variety of contexts from paper mills, factories, entrepreneurial contexts, elderly care and hospitals to schools and newsrooms. This method is typically used by a team or a group of members of different work units with the help of a researcher- interventionist. The CL can be seen as a platform offering tools for participants (usually employees, their management and clients), representing different professional backgrounds and perspectives, for analysing tensions, finding solutions, and creating new models and other social innovations to re-design their work activity and organization (Kerosuo et al., 2010; Schulz et al., 2015). In CL, the aim of intervention is to facilitate the change of activity as a system or network of interdependent activity systems. The preparation of collaboration with representatives of participating organizations takes place (before the CL sessions) by researchers carrying out preparatory meetings, observations, interviews, discussions, and collecting other ethnographic data from the site of the CL intervention (Virkkunen and Newnham, 2013).

Thereafter, six to ten CL sessions (2-3 hours each) are conducted, in which tensions, problems and challenges within and between the participating activity systems are identified. The sessions aim at the negotiation and construction of shared understanding of the overlapping activity of the participating organisations and the development of possible new forms of this activity between the parties.

The provision of care and surveillance takes place in multiple locations with multiple and often contradictory demands (rehabilitation versus security and public safety for example) and is fragmented by multiple providers representing different professional fields causing tensions and problems. Silos and contradictory ways of working exist also within the studied institutions of mental health services and criminal justice. The boundaries and the lack of an overall view and management of the interagency work across the different parts of the service system may lead to breaks and disturbances (see also Engeström, 2000; Kerosuo, 2006). The CL participants engage in a process of promoting innovation by collectively analysing these tensions and contradictions in their work practices and organization. The analysis is facilitated by the researcher-interventionist and the problems are analysed in connection to their historical and local context with the aid of activity-theoretical concepts and models. The contradictions are viewed as driving forces for promoting innovation, knowledge and learning in the CL (Virkkunen and Newnham, 2013; Kerosuo et al., 2010).

The need for learning and change arises when CL participants start to question the different aspects of their existing work practices. The first CL session typically starts with the researcher showing the participants “a mirror” of the present problems. More precisely, the tensions and problems are revealed by the interventionist-researcher via showing of edited video-material of the daily work practices of the participants. The mirror data typically consists of selective excerpts of interviews, client interviews (or other forms of client feedback) or videotaped occasions about problematic situations, identified by the researcher as disturbances (Virkkunen and Newnham, 2013). Then the researcher tests his or her hypothesis of the disturbances with the participants, often lively discussions and debates are carried out and theoretical models, such the model of an activity system and the model of expansive learning actions, are in many cases used as analytical tools in the CL

to promote collaboration and innovation creation (Engeström et al. 1996, Kerosuo et al., 2010). The CL intervention sessions are designed to serve as “microcosms” where interagency collaborations are experienced and cocreated solutions experimented with. The sessions consist of a blend of meaning-making strategies some familiar from existing work practices or brought in as new strategies, concepts or models by the researchers (Engeström, 2004).

CL highlights the multiplicity and multi-voicedness of actors in the cocreation process. The activity systems are inherently multi-voiced since the participants (e.g. employees, managers and clients) present with their own and different conceptualizations of the object of their daily work activity (Engeström et al. 2015; Kajamaa and Lahtinen, 2016). The client is one of these key voices. The clients of mental health services and criminal justice are typically viewed as passive objects of care and surveillance who do not actively make initiatives. Also, the clients contribute to this culture in that they often expect the services are given to them in a ready-made form rather than produced together between the service provider and the client (also Engeström et al., 2014). However, the CL places the client (in our case the offender) as having a central role in the co-configuration and innovation process (Hasu and Engeström, 2000; Engeström, 2004). This may either be through the offender attending the CL workshops themselves. Alternatively, or additionally, the mirror material (edited videos of the work practices) shown by the researcher to the CL participants should strongly represent the offender’s voice: how the offender has perceived the service provided to him or her.

CHANGE LABORATORIES AS A MEANS OF ADDRESSING WICKED PROBLEMS

Rittel and Webber (1973) summarises 10 key features of wicked problems from individual as well as organisational/systems level perspectives. We discuss now the synergy between these characteristics, as they pertain to an organisational level of analysis, and the intentions of the CL to affect organisational change.

- 1. Wicked problems are firstly difficult to define. There is no definitive or universally valid description of the problem.** At the level of the individual, offenders have

multiple needs, live unstable and chaotic lives and complex histories. Each individual and their challenges are unique. At a systems level, the characteristics of each prison and the services and resources available to offenders are different and whilst calls are clear that collaboration between services needs to change, pinpointing what actually needs to change within the organisation, in that particular context, is hard to define. The CL understands this difficulty. Central to the CL method is a critical, emancipatory stance that reaches beyond the dichotomic compositions in complex organizations. Historicity plays a crucial role in CL interventions, in other words, organisations and other collectives are seen as product of their past constructions that are context specific and in constant movement. A core aim of the CL process is to promote collective, expansive learning actions, in which participants (staff and other stakeholders) together identify and together describe the unique problem they face at the ground level. In an ideal case they then produce innovative and practically useful solutions. The CL sessions are designed, not to follow a strictly pre-defined script, but to respond flexibly to the needs of the session and the needs of the particular services participating.

- 2. The environment in which the problem exists is in a constant state of flux, meaning that problem is unlikely to remain constant and will constantly be changing meaning the hunt for a solution is unlikely to be permanent. Problems lack a definitive solution or endpoint.** Offenders situations will be changing and finding solutions may be an ongoing endeavour rather than a one off intervention and resolution. Their challenges will vary as they move between prisons, from high to lower security establishments, as they prepare for release and upon release. Prisons and related services need to offer ongoing and integrated support to help offenders meet these challenges. But as the offenders moves back into their community, new service relationships and partnerships will need to be forged around them, between professionals within and between support services to ensure this continuous support is well coordinated.

The CL may be a way to forge these new relationships or other adaptations to a changing environment. Participants of the CL are viewed as active change agents and contributors to

their learning process who, for example carry out research-like tasks between the CL sessions and present their findings to others. The CL is an iterative process and may be scheduled in an iterative cycle where local manifestations of systemic contradictions are identified creating a need for change, potentially leading to the formulation of a valid and (at least partially) shared object of a joint activity. In this method, change is viewed as a dynamic interplay of multiple expansive learning cycles within and between activity systems. Different professionals may participate in different sessions as the solutions are developed, experimented with in practice between sessions and redeveloped.

- 3. Solutions to wicked problems are not true or false, but good or bad.** The perceived effectiveness of a problem is subjective. What is perceived as good from the perspective of the professional (e.g. the prison social worker, the probation officer) may not be what is perceived as good for the offender. Further, different services may have different priorities and therefore where provision of sheltered housing for the offender may be a good solution for a probation officers' perspective, this may be less so from the municipality's perspective where housing stock is limited. Transfer of the prisoner to a secure ward in specialised mental health services is a good solution from the prison perspective, but not from the perspective of specialist services who guarding limited resources and can only allow access for the most serious of patients. The CL takes as understood that the effectiveness of the solution to any identified organisational contradiction is a subjective one and works on building relations between the differing participant groups, allowing differing voices to be expressed and priorities and perspectives to be shared and understood. Thus, each CL process leads to a unique solution(s), which is contested and negotiated and regarded as only one among many possibilities. CL interventions are not interested in linear or causal connections but collect evidence of historically formed relationships, the mediation of interests and social processes in an organization (Kajamaa, 2011; Benson, 1977).

- 4. Wicked problems are unlikely to have solutions that are fast acting or take immediate action and do not lend themselves to easily controllable testing.** With multiple factors combining in unique ways to contribute to an offender's recovery or risk of reoffending, the exact impact of any intervention introduced (such as drug treatment or education) on the reduction of reoffending and recidivism rates is difficult to establish through methods such as randomized controlled trials and other experimental methods. The same is true of the processes of organisational change and innovation. The evaluation of the CL process and its outcomes is therefore better assessed in the longer term and qualitatively due to the multifactorial nature of the variables that interact and impact on the outcomes of these forms of organisational development. Expansive learning is non-linear and about learning something unique, something that is not yet there. It is a continuous "back and forth" movement and a complex process which calls for breaking of boundaries and transforming organizational cultures and practices, which may take years (Engeström et al., 2007).
- 5. Every solution to a wicked problem is a "one-shot" operation; because there is no opportunity to learn by trial and error, every attempt counts significantly.** For professionals working with offenders, reflection and testing of alternative solutions for the offender and the structures that surround him is often a luxury. The offender is usually in a state of crisis and services must act and adapt to the needs of the offender and offender populations as soon as possible. The basic idea of the CL method is to go beyond reflexivity alone and focuses on action (Benson, 1977). Professionals are able both to reflect on their practice but to act/experiment in practice in real work situations also, bringing their co-created solutions into the practice context.
- 6. Wicked problems may have many potential solutions.** There may be a variety of potential solutions to the challenges of any one offender. Similarly, there may be a variety of ways in which prisons and the criminal justice system and its interactions with welfare services might be reconfigured or developed to enhance practice. The

CL allows participants to explore the range of potential solutions available to any single wicked organisational problem being experienced and facilitates the prioritisation of one solution over another and its implementation.

- 7. Every wicked problem is essentially unique.** Every prison (and the offender subgroups within them) will have a unique set of features and constraints that requires a unique configuration of services and professionals. The strength of the CL is its capacity to be context specific and develop unique solutions to context specific problems.
- 8. Every wicked problem can be considered to be a symptom of another problem.** With offenders, childhood trauma and continued abuse, for example, may be related to drug use and violent reoffending in later life. Treating historical, current and future needs is essential in the rehabilitation of the offender. Similarly, exploring the historical dimensions of organisational or service development is central in future organisational development and innovation. Key to the CL and the participating activity systems, is the consideration of the link between current and previous practice and exploration of the historical development of practice. It is based on the premise that previous practices are explored to understand better current ways of working and develop new way of working in the future.
- 9. The existence of a discrepancy representing a wicked problem can be explained in numerous ways.** Offender and professional perspectives may vary as may the differing perspectives of different professionals themselves. The CL method is about getting participants to agree on the problems facing the organisation and the identification of contradictions, the dilemmas, double binds etc that characterise the development of any solution.
- 10. The planner has no right to be wrong.** The responsibility of the service providers for the consequences of their actions is particularly high when working with the

offender population group. The wellbeing of the offender, their potential ability to desist from reoffending behaviours and public safety, means the wicked solutions developed have far reaching and significant impact. Supporting the front line professional and leaders in developing solutions to their particular institutional problems is key. The CL can provide a forum in which this support is provided, and the cocreated solutions critiqued and reflected upon. This is essential bearing in mind how significant the impact of these solutions will be.

CHANGE LABORATORIES AS A MEANS OF SOCIAL INNOVATION

Within the CL, researchers facilitate the processes through which participants may create new knowledge together and/or combine their existing knowledge in new ways. The CL is about creating progressive social change and improving social relations and collaborations to address a social demand. These aims resonate with the generation of social innovation, defined as the social processes through which new ideas, objects and practices are created, and developed in organizations (Slappendal 1996; Kerosuo et al., 2010). The European Commission (2013) operationalises social innovation process into four key stages: the Identification of new/unmet/inadequately met social needs, the development of new solutions in response to these social needs, the evaluation of the effectiveness of new solutions in meeting social needs and finally the implementation and scaling up of effective social innovations. With perhaps the exception of the fourth phase, these are all key dimensions of the CL cycle and its iterations.

For these phases to be successful, a range of factors should be taken in account (Bason, 2010) and include a need for organizational leaders and frontline professionals alike to be aware of the concept of innovation in the first place and consciously strive towards achieving this when developing new interventions that better address the needs of the offender population. The capacity of the organisational structures and staff to engage in social innovation is also essential, something achievable through adequate governance, guidelines and training. Courage and commitment are also required from the leadership once social innovation processes are underway (Bason, 2010). All in all, raising awareness of social innovation, the importance of putting structures and leaders in place that support social innovation and emphasise the key role of co-creation in the social innovation process, is highly important. These are all key factors that are achieved if a CL is implemented in the organisation. In CLs in which prison officers and mental health professionals may be engaged, for example, engaging multiple activity systems, such as prison officers, specialist and general mental health professions and their management, raises the awareness of the need for social innovation and creates the structures through which the cocreation of jointly produced solutions to the problems interagency working may be produced

Co-creation is a particularly important dimension of social innovation. Co-creation (or termed co-configuration in the activity-theoretical perspective) is the positive joint activity between two or more interdependent actors that leads to outputs with added public value (Alford, 2009). It is key in the CL. From the activity-theoretical perspective, it is the “process of shared construction of an object, a mobilization of the necessary and complementary cultural resources as well as a process of mutual learning” (Miettinen 2006: 176, Miettinen, 1996). The CL provides the space for the cocreation of innovations, a space for stepwise construction of new forms of collaborative practice or of techno-economic networks (Engeström, 1999; also Kajamaa, 2015).

CHALLENGES OF THE CHANGE LABORATORY

Now, we will reflect on some of the challenges of establishing a Change Laboratory intervention, in our case example here of the Norwegian prison and mental health services. These will have transferability to other contexts also. The challenges related to the presentation of mirror data in a secure environment, power differentials between participants and negotiating a mandate to run the CL in terms of the perceived relevance of an intervention to the prison staff and leaders as well as leaders at regional level. The logistics of getting all stakeholders in one physical location at one time, the potential emotional burden of the intervention and the sustainability of the solutions cocreated during the intervention are other challenges:

A key component of the CL is the ethnographic phase first performed by the researcher that explores the current and historical practices of the practice context, often in employing audio and video recordings to capture these practices. These are presented back to participants in the CL as mirror data to initiate interagency reflection and problem solving. However, seeking permissions to use video recordings in this secure environment may be problematic. Mirror material that may include audio clips of interviews with offenders, photographs of problematic situations and illustrations of his sentence pathway during the sentence time may often not be allowed by the authorities in these high security environments and alternative ways of presenting mirror data may be required. One

possibility is to bring the offender physically to the session of to tell his perspective of the received care or services.

This however realises a second challenge to the CL in this environment which is the power or security differentials between professional and service user participants in the CL. By bringing the offender to the session to tell his views of challenges, the research-interventionist must be aware of the possible conflicts and the power relations between offender and other participants and handle this accordingly.

In the process of CL, the participants face needs for change, and the challenges and instances of problems are often emotionally difficult to confront. The CL thus aims at supporting both intellectual and emotional processing, offering tools for participants to distance themselves from the situation and to reflect the situation intellectually. The participants motivation to take part in the sessions and their emotional involvement holds significant power in enhancing organizational learning and change but must be handled sensitively (Virkkunen and Newnham, 2013).

Although prison sites may be more or less open to allowing in researchers to conduct initial ethnographic study of their practice environments. Negotiating the mandate for the possibility of running subsequent CL sessions (that will require busy professionals to be freed from their responsibilities in their various organisations) may be less easy to orchestrate. Negotiating the mandate for a CL in the prison should start with the researcher and the leaders of this organization discussing the core ideas of the CL method and whether there is a need for such a process in the organization at hand. This negotiation process will take many meetings between researchers and prison/health leaders and key frontline professionals. The time spent on getting the leaders to be involved and constructing a shared understanding of the CL process, proves highly necessary for the local ownership and sustainability of the process. In the negotiations, the purpose and the preliminary plan of an upcoming CL intervention needs to be explained for the leaders and negotiated with them. The CL may be seen as a platform or an instrument for organizational change and learning. Yet, to avoid the encapsulation of the created ideas and solutions,

persistent diffusion work across the organization is needed from management and the core participants of the CL.

Lastly, the CL sessions may produce a single or a range of solutions to a particular wicked problem faced by the participating organisations. The significance and sustainability of these outcomes after the researchers have left are largely determined through their subsequent nurturing by the management and employees, implementation of a new activity model and its further cultivation to fit the constantly changing circumstances, and bridge building of the results of the CL to the following change efforts in the organization (Engeström et al., 2007; Kajamaa, 2011).

CONCLUSIONS

Social innovation is central to organisational change and learning. We have presented in this chapter an organisational change tool, the Change Laboratory, as one method of achieving cross boundary collaboration and collective creation of social innovations in organisations facing high complexity. It is proposed as a method well suited to developing social innovations in organisations where challenges have been described as complex, multifaceted wicked problems. The method lends itself to dealing with the unpredictable, non-linear and emerging nature of these issues. The solutions are developed in a bottom up approach by participants in the CL, and with the intention of addressing the wicked problems. The key features of social innovation, including problem identification, co-creation of solutions, implementation and evaluation of new models of working, are key features of the CL. Although, some development may still be required in terms of the scaling up, both of the context specific solutions produced in each individual CL, as well as the sustainability of the CL method after the researcher has left the institution, the emotional burden of the method and managing the intervention with vulnerable and high security environments, the CL has potential as a means of promoting social innovation and collaboration in complex environments.

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RESPONSE TO CORRECTIONS

- 1. The text is too long and the authors may consider delimiting the topics - may either prioritize either a theoretical presentation / analysis of wicked problems and change lab (innovation in the interface between correctional care and mental health) or a greater focus on how change lab can contribute to user involvement and link to «Roger», with a stronger practical / clinical angle.**

We have reduced the text to 5707 words including referencing. We have focused on the theoretical aspects of the model and have removed the reference to a case study offender Roger

- 2. The editors want a clearer introduction / focus that reflects what comes in the text and a clearer conclusion where it appears what the text can add / contribute to the topics in the book.**

We have rewritten the introduction clearly outlining the key themes tackled in the chapter, which are the presentation of the wicked problems in a case context of offender rehabilitation, a description of the change laboratory, the match of the dimensions of the CL with the resolution of wicked problems and the generation of social innovation. The challenges to implementing a change laboratory.

3. It is also desirable with a critical discussion of how to use a change laboratory in practice, in relation to ideals and realities (use of time and resources) and other strengths and weaknesses.

We have written an extra session on These challenges relate to the presentation of mirror data in a secure environment, power differentials between participants, negotiating a mandate for the CL, the potential emotional burden of the intervention and the sustainability of the solutions cocreated during the intervention.