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Learning Dynamics of Workplace Development Programmes

Studies in Swedish national programmes

Agneta Halvarsson Lundkvist

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In a knowledge economy, sustained success for any organization will depend not only on effective participation in economic markets, but, just as importantly and with many of the same players, on knowing how to participate in broader social learning systems. (Wenger, 2000:245)

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ABSTRACT

The thesis focuses on workplace development programmes (WPDPs) that operationalize national policies on workplace development. WPDPs are time-limited and they provide support to organizations that aim to improve their operational performance or employees' work conditions. The support that such programmes provide to organizations consists of competence-development activities provided through networks, courses or hands-on coaching. The supported organizations aimed at changing work practices to increase their operational performance.

Departing from a workplace-learning perspective, the overall aim of the thesis was to contribute to knowledge about learning in workplace development programmes and the supported organizations when realizing policies on workplace development. A qualitative multiple-case study design was used and a total of 115 interviews and notes from meetings are included in the data material. Four sub-studies made up the empirical base.

The findings revealed that realizing policies on workplace development required continuous learning among stakeholders at different levels of the WPDPs. Thus, conditions that enabled learning were important throughout the whole WPDP, which was seen as a large, complex social learning system. Learning between different levels of the WPDP was especially important, which required stakeholder representatives with the appropriate qualifications or characteristics that enabled them to take on roles as brokers between the stakeholders involved in realizing the policy. The overall conclusion pointed towards the dynamics of realizing policies of workplace learning, which cannot be achieved by a one-size-fits-all model for learning.

The findings imply that funders and other authorities that make policies on workplace development through WPDPs should scrutinize how learning among stakeholders that enter into partnership to operate WPDPs is to be facilitated. Linear plans that are not complemented with careful explanations of how such learning is to be facilitated may constitute warning signs. Furthermore, the findings imply that organizations looking for external support to develop the innovative capabilities of employees must be careful in choosing their support. A WPDP may consume the resources of an organization without providing any benefit, if it does not provide the appropriate support. On the other hand, a WPDP may be a great source for learning, particularly if it includes support in designing the change effort, and help in developing an internal support infrastructure that will continue supporting workplace development after the programme ends.

LIST OF PAPERS

- I. Halvarsson Lundkvist, A. & Kock, H. (2015). Program steering by learning. In M. Elg, P-E. Ellström, M. Klofsten & M. Tillmar (Eds.). (2015). *Sustainable Development in Organizations: Studies on Innovative Practices*. (77-92). Edward Elgar Publishing.
- II. Halvarsson Lundkvist, A. & Gustavsson, M. (2018). The role of brokers in a workplace development programme targeting SMEs. *European Journal of Training and Development*, 42(7/8), 417-434.
- III. Halvarsson Lundkvist, A. & Gustavsson, M. (2018). Learning conditions for continuous improvement in a public service organization. *Journal of Workplace Learning*, 30(8), 578-591.
- IV. Halvarsson Lundkvist, A. & Gustavsson, M. (2018). Conditions for employee learning and innovation – interweaving competence development activities provided by a workplace development programme with everyday work activities in SMEs. *Vocations and Learning*, 11(1), 45-63.

ABBREVIATIONS

EU	The European Union
Funders	Organizations and foundations that finance programmes
MI-WPDP	Manufacturing industry workplace development programme
Lean	Lean production
NPM	New public management
PS-WPDP	Public service workplace development programme
R&D	Research and development
SME	Small or medium-sized enterprise
TE-WPDP	ICT in teacher education workplace development programmes
WPDP	Workplace development programme

1. INTRODUCTION

This thesis focuses on three publicly funded workplace development programmes (WPDPs) in three different sectors: higher education (teacher education), the manufacturing industry (small and medium-sized enterprises – SMEs) and the public-service sector (municipalities and hospitals). A WPDP is a type of programme that operationalizes national or regional policies.¹ The programmes may have multiple stakeholders with an interest in the organizations of a particular industry or sector. European, national and regional funders are such stakeholders.² Other examples of stakeholders are labour market organizations, research and development (R&D) institutes, regional authorities, education providers, consultants, etc. (Halvarsson Lundkvist, 2013). WPDPs are time-limited and they provide support to organizations that aim to improve their operational performance or employees' work conditions (Alasoini, 2016).³ The thesis focuses mainly operational performance. However, operational performance was perceived differently in the sectors that were studied. In the education sector, increased operational performance was perceived as better educational activities. In the manufacturing industry, increased operational capacity was perceived as better production capabilities. In the public sector, the perception was that more efficient work practices increase operational performance.

The support that WPDPs provide to organizations consists of competence-development activities provided through networks, courses or hands-on coaching. The coaching may directly support employees, persons who coach the employees (such as change leaders or internal coaches), or top-level management. Independently of the target of the coaching, the competence-development activities provided by WPDPs are intentional pedagogical practices (Billett, 2004), which are planned or structured and designed to change work practices in the supported organization. The idea is that employees and others learn through participating in the competence-development activities that make up the support, and thus become better equipped not only to perform but also to develop their work. Thus, the thesis focuses on learning in supported organizations by means of WPDPs. Nonetheless,

¹ In other parts of Europe, WPDPs are referred to as 'organization development programmes'.

² Among Swedish funders are Sweden's innovation agency (Vinnova) and the European Social Fund (ESF), the Swedish Association of Local Authorities and Regions (Sveriges kommuner och landsting – SKL), the Swedish National Agency for Education (Skolverket) and the Swedish Knowledge Foundation (KK-stiftelsen).

³ Some of the organizations supported by the studied WPDPs also aimed to improve employees' working conditions. This aspect has been studied by other researchers in the projects in which material for the thesis was collected (i.e. Brännmark & Holden, 2012; Lindskog, 2016).

it focuses also on learning in WPDPs. The term ‘learning in a WPDP’ refers to learning among the stakeholders that develop or realize the policy, that is, the overarching and operative levels of a WPDP. This type of programme requires a programme plan that defines neatly described steps that are to promote the development of the particular programme. Such a plan was long seen as sufficient to realize also complex WPDPs. However, although plans are necessary, some researchers recommend complementing the plan by organizing learning among stakeholders (Elg *et al.*, 2015).

Throughout the thesis, the WPDPs are viewed from the perspective of the policy maker or the supported organization. The two perspectives alternate, and each is intermittently placed in the foreground. This is in line with Felstead and colleagues (2009), who advocate that our understanding of workplace learning has relied too much on research conducted at only one of the levels that affect such learning.⁴ Regardless of the perspective used or the part of a system described, learning theory and concepts from the field of workplace learning play important roles in describing, analysing and discussing the thesis’ findings.

However, the workplace-learning field encompasses a wide range of theories, models and concepts that originate from different perspectives on learning (Hager, 2011). Regardless of the perspective they adopt, researchers in the workplace-learning research field consider learning to be a key for organizational development because learning and development are understood as closely connected to each other (i.e. Ellström, 2010a; Engeström, 2014), or even mutually intertwined (i.e. Billett, 2004; Evans *et al.*, 2006; Fuller & Unwin, 2004). In the thesis, a situated learning perspective (Lave & Wenger, 1991; Wenger, 1998) informs the workplace-learning perspective. Accordingly, learning is defined as a social and participatory process embedded in work activities (Wenger, 1998). The workplace is considered to be a central site for learning (Billett, 2004; Evans *et al.*, 2006; Fuller & Unwin 2004), which is recognized in both research and policy (Kersh & Evans, 2017). Thus, the thesis is based on the assumption that learning and organizational development are closely intertwined and almost impossible to separate.

Organizational development includes the improvement of work practices. The improvements may be made continuously, or there may be a need for a radical change effort to implement a partially or completely new work practice (Elg *et al.*,

⁴ Fuller *et al.* (2007) and Felstead *et al.* (2009) introduced the concept of ‘productive systems’ into the workplace-learning field. A productive system encompasses the social relationships between various stakeholders or functions that influence the production of a commodity. The authors argue that by taking into account the relationships in and between the different structures or stages in a ‘productive system’, a more accurate account of what promotes learning in the workplace is possible. According to Felstead *et al.* (2009), the concept of ‘productive systems’ has been used in the analyses of major economies to understand their historical trajectories, and the concept has informed some sector-based studies. WPDPs do not produce commodities, but they can be seen as production and development systems that (ideally) produce new or partly new work practices in supported organizations (Alasoini, 2016).

2015; Ellström, 2010b; Fuller & Unwin, 2004). Thus, the end goal of a WPDP may well be for the supported organizations to implement continuous improvement. Nevertheless, the road to achieving continuous improvement may require a more radical change effort to introduce the concept to an organization's employees. Two of the thesis' four sub-studies describe learning in WPDPs that support organizations during change efforts. The other two sub-studies describe the change efforts made by organizations to implement continuous improvement, by means of WPDPs. At this point, it is important to emphasize that WPDPs provide support (packaged as different types of competence-development activities), but do not as a rule take over and manage the change effort as such.

Furthermore, developing work practices requires the use of employees' innovative capabilities, because only employees enact work activities, in which they confront new challenges and respond to them (Billett, 2012). This type of innovative work may result in what the European Union (EU) refers to as 'workplace innovation' (European Commission, 2014). Clearly, this type of innovative work does not refer to such innovation as major breakthroughs in technology or the implementation of other life-changing ideas. Indeed, workplace innovation would probably have been called 'improvement', 'development' or 'change' some years ago (Gustavsen, 2001). Some see workplace innovation as something that builds bridges between leaders' 'strategical knowledge' and the more 'tacit knowledge' of employees (Gold *et al.*, 2012). Others see innovation in the workplace as something that can only be employee-driven, but may need support from other functions in the organization (Evans, 2015; Høyrup, 2010, 2012). Consequently, learning is necessary in organizations that seek to improve their work practices by utilizing employees' innovation capabilities (Billett, 2012; Ellström, 2010a; Evans, 2012, 2015; Høyrup, 2012; Price *et al.*, 2012; Saunders *et al.*, 2013). Nonetheless, utilizing employees' capabilities to innovate is an underdeveloped area in organizations and more research is needed (Aasen *et al.*, 2012; Evans, 2012; Hansen *et al.*, 2012; Møller, 2010; Teglberg *et al.*, 2012).

Altogether, by focusing on learning in both WPDPs and the organizations they support, the thesis provides insight into what may contribute to the success of WPDPs, without referring to effects in the supported organizations. An important reason for this approach is that it is immensely difficult to measure the effects of development programmes, WPDPs included (Riché, 2013). It is also difficult to measure the effects of innovation policies (Vinnova, 2012). Not surprisingly, WPDPs and similar development programmes have often received criticism for not contributing to the anticipated effects in the organizations they support (e.g. Alasoini, 2016; Brulin & Svensson, 2012; Göransson & Sundin, 2006; ITPS A2004:028; RiR-report 2005:6). As mentioned above, the thesis takes a particular interest in realizing national and regional policies directed towards increasing the operational performance of organizations.

Aim

The overall aim of the thesis is to contribute to knowledge about learning in WPDPs and in the supported organizations when realizing policies for workplace development. Four sub-studies are included, the aims of which are the subordinate aims of the overall study (the thesis).

1. To demonstrate the need for learning-oriented models to steer complex change programmes (the complex change programmes being WPDPs)
2. To investigate the development of a WPDP targeting SMEs by focusing on the people who acted as brokers providing cross-boundary connections between its collaborating partners
3. To explore the conditions (internal and external) that enabled or constrained employee learning during the introduction of continuous improvement into employees' everyday work in a WPDP-supported social welfare department
4. To investigate how the formal competence development activities provided by the WPDP in the manufacturing industry were interwoven with everyday work activities, and to identify the conditions that enabled learning and employee-driven innovation that contributed to production improvements in SMEs.

Sub-studies 1 and 2 were studies into learning in WPDPs, and these studies investigated learning at the overarching (policy) and operative levels of WPDPs. Sub-study 1 is a peer-reviewed book chapter that summarizes a licentiate thesis that aimed to contribute to knowledge about programme development, the dynamics of, and conditions for, such learning (Halvarsson Lundkvist, 2013).⁵ Sub-study 2 is a published peer-reviewed scientific article.

Sub-studies 3 and 4 are studies into learning in supported organizations by means of WPDPs. Both sub-studies are published peer-reviewed scientific articles. Chapter 5 describes how the sub-studies are connected.

The thesis outline

The thesis outline is as follows: Chapter 2 expands on WPDPs. Chapter 3 comprises the conceptual framework, departing from the perspectives that guide the analysis. Chapter 4 gives an account of the research settings. Chapter 5 elaborates the research methods and ethical considerations. Chapter 6 presents summaries of

⁵ I have chosen to enclose the book chapter instead of the customary licentiate thesis. The licentiate thesis is in Swedish and it contains 160 pages, not all of which are necessary for the purposes of the thesis.

the sub-studies. Chapter 7 holds the main discussion, which includes some critical reflections on the study. Conclusions are drawn in Chapter 8, which also describes practical implications and suggests lines for future research.

2. WORKPLACE DEVELOPMENT PROGRAMMES

This chapter describes WPDPs as workplace-learning drivers, by elaborating on WPDPs and European policies on workplace innovation and the stakeholders of WPDPs. Furthermore, the chapter elaborates on what distinguishes WPDPs from other types of programme, and identifies possible stumbling blocks. The chapter ends with two contributions to knowledge about Swedish WPDPs, and explains why we need more studies on them.

European policies on workplace innovation and WPDPs

European policy makers are gradually recognizing that ‘workplace innovation’ is important to increase the operational performance of organizations, and funds are consequently being allocated to facilitate workplace innovation, through, for example, WPDPs (European Commission, 2014; Pot *et al.*, 2016). The concept of workplace innovation refers to “the organizational level (workplace as an establishment or – virtual – organisation) and not to individual workplaces” (Pot *et al.*, 2016:15). Nevertheless, the individual workplace is important, because this is the main space for employee learning (Billett, 2001; Ellström, 2006; Evans *et al.*, 2006; Høyrup & Elkjaer, 2006).

Policies that aim to increase organizations’ operational performance are growing in numbers (Pot, 2011). However, workplace innovation policies stem from isolated policy platforms, such as platforms for competitiveness, employment and social inclusion, or innovation in a broader sense (Pot *et al.*, 2016). Nevertheless, the European Commission underlines that organizational structures that promote workplace innovation is necessary to reach the full potential of ‘the knowledge triangle’ (Pot *et al.*, 2016). The knowledge triangle is the interplay between knowledge, innovation and education, which, according to the European Commission (2014), drives a knowledge-based economy’s productivity growth.

However, comparisons between different countries’ WPDPs, including what types of policies they operationalize and what types of support (i.e. competence-development activities) they provide, are difficult, because national systems differ (Alasoini, 2009). For example, while East Asian workplace development programmes tend to effectually operationalize national policies that aim to increase the operative performance of organizations – mainly in industry and mainly in terms of productivity, European WPDPs, especially Nordic ones, are not as tightly connected to national policies (Alasoini, 2016). Swedish policies on workplace

development and the operationalization of them consist of fragmented, often regional attempts (Alasoini *et al.*, 2017). However, the strengths of the Swedish WPDPs often lie in combining consideration of the quality of working life with operational performance (Alasoini, 2016).

WPDP stakeholders

Throughout the thesis, the WPDP label includes stakeholders at the overarching and operative level that have an interest in developing support to organizations that (presumably) are looking to increase their operational performance. The supported organizations are also stakeholders, albeit as receivers of WPDP support, rather than developers of it. Nevertheless, from a systemic view, a WPDP ought to generate as much value as possible for its stakeholders, and this constitutes a great challenge: it requires the integration of all stakeholder interests in the process of creating value (Freeman *et al.*, 2010).

Among the Swedish funders with an interest in WPDPs are Sweden's innovation agency (Vinnova) and the European Social Fund (ESF), the Swedish Association of Local Authorities and Regions (Sveriges kommuner och landsting – SKL), the Swedish National Agency for Education (Skolverket) and the Swedish Knowledge Foundation (KK-stiftelsen)⁶. In addition to funding organizations, stakeholders at the overarching (policy) level may be social partners, in the form of employer's organizations and trade unions. Publicly funded WPDPs need consent and assistance from the social partners, because public intervention in areas that are traditionally associated with work organization and management is a delicate 'business' (Alasoini *et al.*, 2017).

Research and development (R&D) institutes, education providers, consultants, etc., are stakeholders that may be looking to make a profit by supporting organizations in a certain industry or sector. It is often this type of organization that receives funding to operate WPDPs, if the funder or funders do not operate the WPDP themselves (Halvarsson Lundkvist, 2013). When funders operate the programmes themselves, supported organizations may receive funding to organize competence-development activities or purchase them from others. In such cases, the funder may organize networks for organizations in the same programme. To define WPDPs more closely, the following explains what distinguishes WPDPs from other types of programme.

⁶ The websites of Swedish WPDP funders reveal differences in the terms used for WPDPs and whether the programmes are operated directly by the funder, by another organization, or by several organizations.

What distinguishes WPDPs from other types of programme

Viewed traditionally, a programme is a temporary organization (Packendorff, 2003; Sahlin-Andersson & Söderlund, 2002) or a temporary system (Miles, 1964) that holds together several action-oriented projects by way of a linear, pre-planned set of actions (Ferns, 1991; Gray, 1997; Pellegrinelli, 2011). However, programmes can also be vehicles for more complex change efforts that require learning and development throughout the programme's duration (Artto *et al.*, 2009; Pellegrinelli, 2011). In such development programmes, stakeholders and managers make incremental changes as the programme progresses to adjust goals and initiate new projects or plans throughout its duration (Brulin & Svensson, 2012). Persons who work in such complex programmes must also cope with emerging contextual conditions that affect the ongoing operative work. Therefore, they must negotiate with each other (Elg *et al.*, 2015; Rijke *et al.*, 2014; Ritson *et al.*, 2011).

Alasoini (2008; 2016) identified three constituents that distinguish a WPDP from other types of development programme:

- Development is guided by a shared framework that applies to several organizations simultaneously
- The content of the framework has been accepted by the management and staff of the work organizations in question and by other major stakeholder groups, such as the central government (or other policy makers), social partners, and researchers, consultants and other experts
- The involved work organizations engage in exchange of information interaction and cooperation (Alasoini, 2008:63).

These three constituents are a result of stakeholders' negotiations and joint development work (although this is not explicitly stated by Alasoini). Furthermore, based on neo-institutional theory, Alasoini (2016:109) suggests that WPDPs should be regarded as "open, dynamic and learning production and development systems" and he sees 'learning networks' as the best way to impact the policy level of WPDPs. However, learning theory is not central in Alasoini's work, although he does mention that two important 'mechanisms' for learning are evaluation and external influences, such as new research or new social problems⁷. On the other hand, joint learning among the stakeholders of WPDPs is not a given (Brulin & Svensson, 2012), because there are difficulties that concern their management.

⁷ Alasoini's dissertation (2016) is rich in findings from WPDPs and consists of several parts. In one part, he builds a 'typology of transition pathways' that illustrates how different types of WPDP may benefit from different types of approach from the stakeholders. He concludes that WPDPs may play different roles in achieving change, depending on the transition pathway.

Three major stumbling blocks for WPDPs and how to avoid them

One general problem faced by development programmes, WPDPs included, is that some managers or directors look upon the programmes in a traditional, linear, way – that is, as if the development of the programme can be meticulously pre-planned (Brulin & Svensson, 2012). Researchers in various fields criticise this type of linear programme management model for WPDPs or similar programmes and projects (e.g. Cavanagh, 2012; Jenner, 2010; Lycett *et al.*, 2004; Pellegrinelli *et al.*, 2007; Platje & Seidel, 1993; Russ, 2011; Styhre, 2002; Thiry, 2002). A motivation for the criticism is that when stakeholders negotiate their different interests in complex systems, such as development programmes, WPDPs included, it is necessary to adjust the goals along the way, to consider the needs of all stakeholders (Brulin & Svensson, 2012; Elg *et al.*, 2015; Laestadius *et al.*, 2007; Majone & Vildavsky, 1984).

Not only managers and directors, but also some funders view WPDPs as if they are traditional programmes of a linear character rather than complex systems. Consequently, such funders demand that programmes stick to the original, sometimes detailed, plan (Brulin & Svensson, 2012, Svensson & Brulin, 2013). The funders' view may exhort WPDP managers to take a linear management approach in the development of a WPDP (Brulin & Svensson, 2012). Nonetheless, some funders, such as the European Social Fund (ESF) and the European Structural Funds, encourage ongoing evaluation⁸ to enable plans to be adjusted (European Commission, 2007; 2013; Sjöberg *et al.*, 2013). Some funders also take part in meetings with programme operators, and engage in discussions about the programme development (Ehneström & Molander, 2009; Halvarsson & Öhman Sandberg, 2009).

Important contributions on learning among stakeholders of Swedish WPDPs

Brulin and Svensson (2012) use concepts derived from the field of workplace learning, and concepts from other research fields, such as sociology, ergonomics and political science. Their focus is sustainability, in the sense that development programmes should not consume more resources (economic and social) than they generate. They refer to many studies by others and themselves, and conclude that collaboration among stakeholders, developmental learning and active ownership

⁸ The main purpose of ongoing evaluation is to continuously follow “the implementation and delivery of an operational programme and changes in its external environment, in order to better understand and analyse outputs and results achieved and progress towards longer-term impacts, as well as to recommend, if necessary, remedial actions” (European Commission, 2007:6).

from those who have the resources required to further develop programme results are key to achieving sustainable change through development programmes.

Furthermore, Brulin & Svensson (2012) conclude that active ownership, professional steering, competent management and engaged participants are crucial for sustainable programme development. Active ownership is associated with the interest in the programme shown by policy-makers (national, regional or local), and their ability to take care of results and further develop them. Professional steering requires a specific group that represents the stakeholders and negotiates the strategic decisions that must be made at the operative level of the programme. Competent management contributes to learning among the different functions and engages the participants who make the actual changes. This type of chain of functions is important at both the programme and local levels (i.e. the supported organizations), and the authors advocate that all of the functions in a programme and their interactions should be studied when studying or evaluating development programmes.

Building on Brulin and Svensson's (2012) 'chain' of functions necessary for the sustainable development of programmes, Öhman Sandberg (2014)⁹, used a framework originating from the third generation of activity theory (Engeström, 2001). She identified four dimensions of sustainable programme development. The first dimension is delegated ownership, i.e. that funders (at the top of the chain) should delegate the ownership of programmes to the stakeholders, and that all stakeholders must accept ownership of the development work. The second is artefact-mediated depth, which holds the content dimension of a programme. Somewhat simplified, knowledge about the content, in this case ICT, is important for expansive learning to occur. The third dimension is the importance of a partly shared object (in the sense of a shared goal for the activity). The fourth is a requirement that the development work is truly necessary at each level.

More on why studies on WPDPs are needed

The study by Brulin and Svensson (2012) and that by Öhman Sandberg (2014) concluded that learning among stakeholders takes time. Commonly, WPDP stakeholders have only 2-3 years to: 1) develop a framework and provide the activities that make up the support, 2) allow the organizations to carry out their change efforts, and ideally, 3) produce effects in the organization (Brulin & Svensson, 2012).

⁹ The study is a doctoral thesis (Öhman-Sandberg, 2014) based on extensive studies in the WPDP for teacher education, which is one of the WPDPs included in the present thesis (see introduction). The thesis aimed 'to develop meanings of sustainable programme development'. Empirically, the findings revealed that the WPDP had great problems with steering during the initial years, and that all stakeholders were not let in to develop the programme. The funder finally intervened to demand collaboration and better strategic steering.

In addition, there is always the issue of sustainability for the programme itself, which requires that stakeholders at the overarching level continue or increase support to organizations. This may involve finding new resources, which calls for more research on WPDPs and similar programmes (Brulin & Svensson, 2012; Alasoini *et al.*, 2017). There are also sustainability issues in the supported organizations, that is, the question of how to reach results and effects without consuming more resources than are invested, and without jeopardizing employee health. To understand these general dynamics (obstacles or mechanisms) that lie behind the implementation of WPDPs, more research is needed (Brulin & Svensson, 2012; Pot *et al.*, 2016). However, few studies have considered learning at the overarching and operative levels of WPDPs. Most studies into WPDPs search for the effects of WPDPs, rather than investigating what makes them work (Alasoini, 2016). Furthermore, studies that have contributed to knowledge concerning the reasons that some WPDS produce change in the organizations they support, or in society, while others do not are often rich in content but mainly descriptive, and do not present a systematic conceptual framework (Alasoini, 2016). The following chapter expands on workplace-learning concepts to build a conceptual framework.

3. CONCEPTUAL FRAMEWORK

This chapter introduces some concepts useful for understanding learning in WPDPs and the organizations they support. Following a brief introduction to the workplace-learning field, the concepts of ‘large social learning system’ and ‘community of practice’ are introduced. The chapter subsequently explores conditions that may enable or constrain learning in social learning systems.

A workplace-learning perspective

The thesis is based on a workplace-learning perspective. The workplace-learning field encompasses a wide range of theories, models and concepts that originate from different perspectives of learning (Hager, 2011). Regardless of perspective, scholars of the workplace-learning field generally agree that learning is something that takes place mainly in work activities that are of an informal character (e.g. Billett, 2004; Ellström, 2011; Evans *et al.*, 2006; Fuller & Unwin, 2004; Høyrup & Elkjaer, 2006). It is also generally agreed that organized competence-development activities are more useful, in terms of contributing to the development of work practices, if they are integrated into the everyday work activities of participants (e.g. Billett, 2012; Ellström, 2010a; Evans, 2012; Fogelberg Eriksson, 2014; Price, 2012). However, what everyday work offers in terms of learning opportunities, and how much the employees of an organization choose to engage in them, differ (Billett, 2004, 2009; Solomon, 1999). Furthermore, the people in an organization may choose not to take the opportunities for learning that are offered, and the affordances that an organization provides will remain unused (Billett, 2004; Gustavsson, 2007).

The workplace-learning perspective used in the thesis is informed by a situated learning perspective (Lave & Wenger, 1991; Wenger, 1998), in which learning is defined as a social and participatory process through which both humans and the practice they share are developed (Wenger, 1998). Consequently, the situated learning perspective challenges the idea that learning can only be understood from solely an individual or solely a collective standpoint. Situated learning theory has contributed meaningfully to conceptualizing the learning that takes place outside formal, educational institutions (Gobbi, 2010, Farnsworth *et al.*, 2016). Nevertheless, as advocated by Fuller and colleagues (2005), and agreed on among researchers in the field, investigating the circumstances or conditions that surround learning is paramount.

The affordances offered by the organization may be seen as various conditions that shape the environments in which learning takes place (Ellström, 2011, gives an overview). However, before expanding on different types of conditions that may affect learning in organizations, it is important to introduce some concepts that more broadly characterize the environments in which learning takes place.

Several useful concepts have been developed in the framework of situated learning to analyse learning as a social process integrated into work practices. Here, the concept of large learning system provides the means to analyze the social processes in WPDPs and supported organizations.

Large social learning systems

The concept of ‘community of practice’, coined by Lave and Wenger (1991), was originally developed to describe learning in analyses of the practice of a shared activity and of identity formation. The concept has been further developed by Wenger (1998, 2000, 2010a, 2010b) and by Wenger-Trayner and Wenger-Trayner (2015) into an analytical tool to help to understand not only a single community of practice but also large landscapes or systems of multiple, interrelated, communities of practice in which people move from one community to another. Thus, a single community of practice may be seen as “the simplest social learning system” (Wenger, 2010b:193).

A shared interest holds social learning systems together and builds boundaries between them

Members of a community of practice share the same interests, and they build their community in a joint activity with mutual engagement. With time, the members of a community develop a shared repertoire of common resources or artefacts (e.g. ways of talking about things, routines, tools, etc.) (Lave & Wenger, 1991). Eventually, the process creates a unique history of learning for the community (Wenger, 2010b). Thus, the community of practice defines competence within it. To have competence within communities of practice is to understand the enterprise, being able to engage productively with others in the community, and to have the ability to use appropriately the repertoire of resources available to the community (Wenger, 2010b). This learning history of a community of practice emerges when the community’s members challenge the community’s expertise and make changes (Wenger, 2010b). With time, a community’s history of learning creates socio-cultural boundaries to other communities of practice, and people who engage with a new community must cross these boundaries to be able to engage fully in the practice (Wenger, 2010b).

Learning potential when boundaries are crossed

Crossing boundaries may be difficult but rewarding, and boundary crossing brings great potential for learning (Wenger, 1998). Wenger (2010:183) explains why acting and learning across different communities of practice may be rewarding – or challenging:

Without a shared history of learning, boundaries are places of potential misunderstanding arising from different enterprises, commitments, values, repertoires, and perspectives. In this sense, practices are like mini-cultures, and even common words and objects are not guaranteed to have continuity of meaning across a boundary. At the same time, boundaries can be as much a source of learning as the core of a practice. The meetings of perspectives can be rich in new insights and radical innovations. Still such new insights are not guaranteed, and the likelihood of irrelevance makes engagement at the boundaries a potential waste of time and effort. (Wenger, 2010b:183)

People continuously move from one community of practice to another. In some, they merely touch the periphery, while in others, they move to the centre. When people do this, they may connect communities (Wenger-Trayner & Wenger-Trayner, 2015). They may be the links themselves, or they may develop shared artefacts that bind the communities together (Wenger, 1998).

Shared artefacts as means to influence other communities of practice

Communities of practice are often connected into large, complex, social learning systems by shared artefacts (Wenger, 2010b). The shared artefacts may be resources such as tools, policies, plans or abstract concepts (Wenger, 2010b). The strategic plans of an organization, for example, connect the practice of top management with the practice of first-line managers and employees. The artefacts, created by the first practice, would function as ways of steering or influencing the latter.

As described by Wenger-Trayner and Wenger-Trayner (2015), social learning systems may consist of practices that try to ‘colonize’ others, or perhaps (on a more positive note) try to steer them in a direction that they find beneficial for all. Wenger-Trayner and Wenger-Trayner (2015) explain how various practices may try to control or influence other communities by introducing shared artefacts:

Various practices have differential abilities to influence the landscape [of multiple communities of practice] through the legitimacy of their discourse, the legal enforcement of their view or their control over resources. Regulators produce national policies and verify compliance with auditing practices. [...] All these practices represent attempts to colonize the field of practice in various ways. And practitioners sometimes comply with mandates and demands and sometimes shrug it all off as too disconnected to be relevant. Sometimes they even create an appearance of compliance while doing their own thing. (Wenger-Trayner & Wenger-Trayner, 2015:15)

Other scholars (Hodkinson & Bloomer, 2004), consider communities of practice to be surrounded by an inner social framework that they form together with other communities of practice that are easy to influence. In the case of closely connected communities of practice, a framework forms, outside of which an outer social framework exists that is considerably more difficult to influence (Hodkinson & Bloomer, 2004). Communities of practice that make laws, regulations, and other types of policy lie in the outer framework.

Nevertheless, for one practice to persuade another practice to change what it does is difficult, because none of the practices that are involved (e.g. policy making, managing, coaching or frontline work) represents the whole (Wenger-Trayner & Wenger-Trayner, 2015). Wenger-Trayner and Wenger-Trayner (2015) show that all practices are local, with their own internal logic, depending on what they produce and what their learning history is. Independently of the directive or mandate the members of a community of practice has been given, the internal logic and claim to knowledge of a practice are never replaced, only influenced.¹⁰

Shared artefacts may call for a shared activity or practice

No matter what level of steering, governance or attempts to influence other practices, shared artefacts may start to function as boundary objects that reside in between the communities of practice (Star & Griesemer, 1989; Star, 2010; Wenger, 1998). Boundary objects have been described as organic infrastructures that the stakeholders have in common, which make it possible for different communities of practice to share an activity without fully merging, and without having to build consensus regarding their own practice (Star & Griesemer, 1989). Boundary objects that rest between communities of practice may eventually develop into an ‘in-between’ practice (Wenger, 1998). In such joint practices, the boundaries between the communities of practice may lead to misunderstanding or confusion (Wenger, 2010b). However, as described above, when members of different communities cross the boundaries, opportunities for learning may arise (Wenger, 1998; Engeström, 2001).

Nonetheless, as noted by Fuller and colleagues (2005), learning is about mutual engagement in activities that involve negotiations of meaning not only inside, but also beyond, a primary community of practice. Thus, collective brokering is one way to sustain the connections, whether they are between communities of practice with no or few boundary objects, or within an established in-between practice (Wenger, 1998).

¹⁰ The reader may have detected that the terms ‘community of practice’ and ‘practice’ is used intermittently. When the terms are used here, they are mainly used as written in the original source.

People acting as brokers

‘Brokers’ are people who both constitute and create the connections between communities of practice (Wenger, 1998), and between practices that are part of large and complex learning systems (Wenger, 2010a). Brokers create the artefacts described above that communities of practice share, and brokers are connections in themselves. When acting as connections or links, brokers may take with them knowledge or elements from one practice to another (Wenger, 2010a). According to Wenger (1998) and Wenger-Trayner and Wenger-Trayner (2015), the ‘knowledge’ that brokers and others carry with them derives from participation in various practices, and their knowledge can only come to life and be made use of in a practice.

To rely on brokers to build cross-boundary connections between organizations is not without risk, because such persons often work ‘at the edge’ of their own organizations with people from other communities, and thus they often have a peripheral position in their own organizations (Akkerman & Bruining, 2016; Wenger, 1998). This means that they are usually not central decision makers in their own organizations, and thus it may be difficult for brokers to influence their own organization to make the changes needed to create closer links with other communities (Wenger, 1998). Examples of persons at the edge of their own organization are consultants and coaches sent out to support other organizations. The value of these types of broker often goes unnoticed in their home organizations because they do not fully belong (Wenger, 2010a).

The role of broker may be political, as some brokers may be interested in governing the communities of practice they try to connect, while other may want to achieve a balance between the connected communities of practice (Hong & O, 2009; Kimble *et al.*, 2010). In addition, some brokers attempt to forge new learning partnerships in complex systems. Wenger-Trayner & Wenger-Trayner (2015) denote such brokers as ‘systems convenors’.¹¹ Systems convenors see possible future connections between communities of practice that share the same interests, and which would therefore benefit from developing something together. On the same note, when building cross-boundary connections it is useful to ask whether there are potential brokers who are not providing cross-boundary connections when they ought to (Wenger, 2010a). Nevertheless, the social learning processes in which brokers participate are different, and depend on what they are trying to, or are able to, achieve.

¹¹ Wenger-Trayner and Wenger-Trayner (2015) refer to an unpublished dissertation (Smith, 2011) and Neal and Neal (2011) when introducing the concept of ‘systems convener’.

When brokers cross boundaries they do so in different types of processes

In an extensive literature review, Akkerman and Bakker (2011)¹² found that brokers engage in four different types of boundary-crossing process in which learning may occur. Two of the processes are identification and reflection, in which brokers make sense of their connection or reflect on a prior activity that they have in common. These two types of process do not automatically lead to action (a new joint activity). In contrast, the other two boundary-crossing processes, transformation and coordination, require action. In transformation processes, brokers create new things “by virtue of their differences” (Akkerman & Bakker 2011:152). In coordination processes, a dialogue is established that enables work towards a shared boundary object to continue without absolute consensus (Star, 2010; Star & Griesemer, 1989). Thus, coordination and transformation processes are opposites, because transformation occurs when brokers are faced with socio-cultural differences or other difficulties, and coordination is possible only when the brokers have overcome (some of) those differences (Akkerman & Bakker, 2011).

Both Akkerman and Bakker (2011) and Wenger (2010b) remind us that a social learning system that encompasses multiple communities of practice may be harmonious or full of conflicts which, in part, derive from their different learning histories. Brokers may be systems convenors who take on the building of new connections between communities of practice, and in this way form new social learning systems, or they may work to reconfigure or strengthen existing connections. Both these types of broker cross the boundaries of their respective communities of practice and when they do, they learn. Regardless of who learns, learning takes place in the learning environments of the social learning system (Felstead *et al.*, 2009).

The next section introduces some concepts regarding learning environments. These are helpful in analysing whether an environment enables or constrains learning and the development of work practices.

Learning conditions

As previously mentioned, several conditions contribute to shaping learning environments. The conditions determine whether a learning environment enables or constrains learning.

¹² Akkerman and Bakker (2011) analyzed 187 peer-reviewed boundary-crossing studies to identify the four types. The studies used ‘boundary crossing’ or ‘boundary object’ as an analytical concept, and the studies had an interest in both learning and development (or change).

Learning environments may be expansive or restrictive

Based on studies of workforce development in organizations, Fuller and Unwin (2004, 2011) proposed that a learning environment may be placed somewhere along an imagined ‘expansive-restrictive continuum’. Predominantly expansive learning environments have features that differ hugely from those of predominantly restrictive learning environments with respect their approaches to organization and pedagogical practices, such as intentionally organized competence-development activities.

In organizations with predominantly expansive learning environments, problem solving takes place in dialogue between different communities of practice. Further, multiple forms of expertise from various communities of practice are utilized in the dialogue (Fuller & Unwin, 2004, 2011). Two other features of expansive learning environments are that the goals of the employees are aligned with the goals of the organization, and that competence-development activities are a means to achieve this alignment (Fuller & Unwin, 2011; Engeström, 2014). In contrast, features of restrictive learning environments are communities of practice that have little contact with other communities, and the use of top-down instruction rather than dialogue to solve problems. In addition, organizations with restrictive learning environments offer employees mainly competence-development activities to learn their job, not to develop their work practices (Fuller & Unwin, 2011).¹³ However, people react to conditions in different ways, and they seldom perceive a learning environment in the same way (Felstead *et al.*, 2009). Nevertheless, the features of a learning environment promote different types of learning (Fuller & Unwin, 2011).

An expansive (enabling) learning environment is particularly important for the development of new work practices that require changes that go beyond the existing framework of an organization (Ellström, 2001, 2006; Fuller & Unwin, 2011). Such changes, which go beyond existing structures or beyond peoples’ beliefs and values (or, in other words, beyond the history of learning of the community of practice) require what is known as ‘developmental learning’. Developmental learning may be contrasted with ‘adaptive learning’. Adaptive learning is learning that stays within the existing framework (i.e. the existing repertoire) when making changes. The modes of learning should be seen as complementary, not contrary (Ellström, 2006). However, adaptive learning usually predominates when there is too much focus on producing services or products in an organization (Ellström, 2001, 2006).

Furthermore, an expansive learning environment is more likely to support the creativity and innovation capabilities of people than a restrictive one (Ellström, 2010a; Evans, 2012; Billett, 2012; Price, 2012; Fogelberg Eriksson, 2014). This is

¹³ Fuller and Unwin (2004; 2011) give an in-depth account of the features mentioned, and several other features of expansive and restrictive learning environments.

why the conditions that shape learning environments into expansive or restrictive ones affect the development of work practices. Thus, when studying a social learning process, it is important to look closely at the conditions that shape the learning environment (Fuller *et al.*, 2007).

Various conditions shape the learning environment

Several studies (e.g. Billett, 2012; Ellström, 2006; Engeström, 2001; Evans *et al.*, 2006; Fuller & Unwin, 2004; Gustavsson, 2009) have identified conditions that shape the learning environment, both internal to an organization and external (Ellström, 2011). Some of these findings are presented below.

Organizational and contextual conditions affect learning in organizations

In the wider research community, an organizational culture that allows a high level of participation was early recognized as a factor that promotes organizational development (Armstein, 1969; Eklund, 1997). Studies within the workplace-learning research field show that a culture of trust, openness, and a willingness to take risks enable learning (Ellström, 2010b). Because most learning takes place in everyday work activities (Billett, 2001; Ellström, 2006; Evans *et al.*, 2006; Høyrup & Elkjaer, 2006), the way in which the work is organized is important, and variety in the work tasks undertaken promotes employee learning, particularly if the work tasks are complex (Billett, 2002). This is, however, only the case if the employees have freedom to act (Ellström, 2006).

First-line managers and other functions may facilitate employee learning, if they have suitable skills (e.g. Ellström, 2006; Gustavsson, 2009; Lancaster & Di Milia, 2015). Such facilitators become a condition for learning for others in the organization, but they need time and other resources if they are to facilitate others (Ellström, 2006; Gustavsson, 2009). Such resources include measures taken in the organization to support the managers in improving their roles as facilitators of workplace learning (Gustavsson, 2009). First-line managers who take on a role as facilitators of employee learning are important, if not indispensable for employees to learn at work, which make such first-line managers a condition for employee learning (Döös *et al.*, 2015; Gustavsson, 2009; Lancaster & Di Milia, 2015), not least when they provide feedback and time for reflection (Ellström, 2006; Eraut, 2007). All of the conditions described above are examples of internal contextual and organizational conditions. However, the internal conditions may be affected by external conditions (Fuller *et al.*, 2003; Evans, 2015).

External conditions affect the internal conditions for learning

Among the external conditions that underpin the organizational conditions are institutional factors such as laws and regulations, the general economy, the ownership structure, and the history of the organization (Fuller *et al.*, 2003). Investigations into external conditions such as the general economy and the policies of the

EU, the Swedish government and regional authorities are important to understand the learning opportunities in the workplace available to managers and employees (Elkjaer *et al.*, 2007). It is also important to consider these and other external macro contexts, in order to understand how employee learning may be supported (Rule *et al.*, 2016). Competence-development activities provided by a WPDP may also be seen as an external condition for the supported organizations. As described above, having integrated such activities into everyday work is also a condition that enables learning (Ellström, 2010a; Evans, 2012; Billett, 2012; Price, 2012; Fogelberg Eriksson, 2014).

The research settings in which conditions for learning were investigated are described in the next chapter.

4. THE RESEARCH SETTINGS

This chapter describes the research settings of the four sub-studies from which the thesis draws its empirical findings. The chapter also gives some background information about the WPDPs examined¹⁴. Chapter 5 explains the connections between the sub-studies.

The manufacturing industry WPDP

One of the research settings was a manufacturing industry WPDP (MI-WPDP), which was a national programme. Three large funding organizations, two of which allocated resources from the EU, funded the programme. The aim of the MI-WPDP was to inform, educate and coach manufacturing SMEs in Lean production (Lean) and to continue to do so after the end of the first three-year programme period (Dec. 2007-Dec. 2010). It was unclear during the programme whether funding would be available after the initial period. The MI-WPDP supported 59 enterprises throughout Sweden during this period. It became clear that the programme would continue, and further enterprises were supported. Lean is a management concept that emphasizes long-term, sustainable and continuous work to reduce waste and improve production capabilities (Womack *et al.*, 1991; Womack & Jones, 1996; Liker, 2004).

The three funders initiated the programme together with the national Metalworkers Union and a national employer organization. All of these bodies had worked together before, albeit in different constellations. The national stakeholders appointed two organizations that they had previously worked with to operate the programme. One of these was a professional education school set within an industrial and technical university, the other a technical research and development (R&D) institute. The two organizations were closely linked in a number of joint activities and some employees worked or had worked in both organizations. Another three universities, from regions across Sweden, participated at the operative level in developing and operating the WPDP. Several meetings were held for this purpose. These included steering board meetings with representatives from the national trade union and the employer association, and coaching group meetings at the operative level, which developed a new coaching method that was part of the support to the SMEs.

¹⁴ The background information on the MI-WPDP and TE-WPDP can be found in the aforementioned licentiate thesis (Halvarsson Lundkvist, 2013). The background information on the PS-WPDP was obtained by informal talks with the programme director and at meetings with the WPDP's network of consultants and steering group (not used as data in the thesis).

The stakeholders had found that it was difficult to obtain coaching specifically designed for SMEs, and they therefore decided to develop a new, unique coaching method for the WPDP. The method was developed by some of the persons who later coached the supported SMEs. In addition, the subsidized support also included a university course in Lean (7.5 ECT credits) for two persons per enterprise, provided by the professional education school. The course included several 'home-work assignments', for the participants to carry out in their respective enterprises. The coaches assisted in some of these assignments, directed towards a pilot area or workgroup. All stakeholders at the overarching and operative levels of the WPDP, except for the three additional universities, were involved in writing the programme plan before the start of the WPDP.

In addition, four SMEs that had been supported by the MI-WPDP were studied. The SMEs had differing contextual conditions, such as ownership, size and what they manufactured. The SMEs had been supported for 18 months by the MI-WPDP, and they had left the programme 6-18 months prior to the studies. Sub-study 4 (Chapter 5) provides a full account of the contextual conditions of the SMEs.

The teacher education WPDP

Another research setting was a teacher education WPDP (TE-WPDP). The TE-WPDP was regional, and it had received funding from a national WPDP operated by the funder. It aimed to increase ICT competence in teacher education throughout Sweden. The regional WPDPs were to initiate sustainable development work to increase the use of ICT tools among teacher educators, local school-teachers and students of teaching. This was to be achieved in cooperation with external actors in the form of the municipalities in the region. A national network, organized by the funder, provided a forum in which all regional programmes that had received funding from the programme met. In the meetings, they discussed problems and possibilities in developing the competence-development activities that were to make up the support units in teacher education schools and local schools. However, the three regional WPDPs that had received funding were self-governed.

The funding of the TE-WPDP was for 5 years (2006-2011). The operative management of this WPDP was located at a teacher education school, which was part of a university. Employees at the institution who operated the teacher education school had initiated the regional WPDP, and the municipalities had not taken part in writing the application. They had simply signed it when it was ready to be submitted. The municipalities in the region, including a further 11 that contributed to co-finance the WPDP, were represented in a reference group and an operative group, led by a programme manager, which had been formed to develop the support.

In addition, a steering group, with representatives from two university departments that made up the teacher education school and the teacher education board

were to make strategic decisions that involved the stakeholders. Other internal stakeholders, such as the university top management, were not involved in developing the WPDP, but had supported the application.

The public service WPDP

The final research setting was a social welfare department supported by a public service WPDP (PS-WPDP). Inspired by the MI-WPDP, the PS-WPDP aimed to introduce Lean into public service organizations (municipalities and hospitals). The programme set up a network for Lean consultants working in the public service sector who offered courses in Lean to public service organizations. At the time, Lean was a new concept in public service organizations.

The PS-WPDP was initiated by a foundation owned jointly by all major labour market parties in the public sector. However, these stakeholders did not participate in the development of the WPDP. The foundation staff developed the WPDP. The WPDP was initially a national programme, but during the first year, the foundation that operated it was restructured. The restructuring eventually resulted in the former director of the foundation taking over the programme, and the WPDP becoming a private enterprise. The public funds that had enabled the initial development and the promotion the WPDP were no longer available, and other public funders were not interested.

The support to public service organizations consisted of different blocks of theoretical courses in Lean and change management that the supported organizations chose. The consultants in the network were not part of the support, but the supported organizations were free to engage one or more of them should they wish to do so.

The social welfare department that was supported by the PS-WPDP had approximately 3,000 employees working in approximately 100 work units in four operations (care for the disabled, elderly care, social benefits and family support). The department engaged in a comprehensive change effort referred to as ‘the Lean investment’, which included the introduction of continuous improvement in employees’ everyday work. Sub-study 3 gives a full account of the contextual conditions.

5. METHODS

This chapter begins with an account of the research approach, and of the role of the researcher. The research design follows, and an account of the data collection and data analysis. This section presents some notes on methodology. Finally, the chapter discusses ethical considerations. Limitations of the study are highlighted throughout the chapter, while further reflections on the quality of the study are found at the end of the discussion (Chapter 7).

Research approach

The research approach was interactive (Aagaard Nielsen & Svensson, 2006; Caswill & Shove, 2000).¹⁵ In interactive research, researchers and practitioners collaborate in the first steps of the research process. The researchers and practitioners together decide the focus of the study and the data collection methods to be used, which may be both qualitative and quantitative. Researchers and practitioners also make an initial interpretation or analysis of the collected data together, often with support from various analytical tools or concepts developed in other interactive research projects. Thus, the research results may contribute to knowledge directly in the organizations that take part. However, the researchers never play an active role in the organization's development work. When the initial stages are completed, the researchers retire to continue analysing the data from one or more studies. The subsequent analyses are carried out by the researchers alone, although the same analytical tools and concepts used in the initial analysis with the practitioners may be used. New concepts or analytical tools may be added at this stage, or may replace the initial ones (Aagaard Nielsen & Svensson, 2006; Halvarsson & Öhman Sandberg, 2009; Svensson *et al.*, 2007).

The interactive research approach involves decisions on focus and data-collection methods being made in collaboration with central decision makers in the studied WPDPs.¹⁶ As customary in interactive research, the preliminary results were analysed jointly with all or part of the interviewees or respondents in what are known as 'analysis seminars' (Halvarsson & Öhman Sandberg, 2009). Initial sets of interviews in the MI and TE-WPDPs led to the development of analytical tools that were later tested, and further developed by researchers and the interviewees or other stakeholder representatives. Among such tools were the aforementioned chain of functions for sustainable programme development (Brulin &

¹⁵ The licentiate thesis (Halvarsson Lundkvist, 2013) presents a full account of the interactive research approach in the TE and MI-WPDPs.

¹⁶ The SMEs and the social welfare department, however, were not involved in decisions on focus and data-collection methods.

Svensson, 2012).¹⁷ The researcher, in this case the author of the thesis, then withdrew from the studied WPDPs and completed the analysis presented in the aforementioned licentiate thesis (Halvarsson Lundkvist, 2013, summarized in Substudy 1). New concepts were used in this.¹⁸ Furthermore, it was natural for me to choose to carry out a qualitative multiple case study (Yin, 2018), considering that the studies in the interactive research projects gave ample qualitative data for several cases. Consequently, my study object, which is learning in WPDPs, was well covered by the data collected. I was able to study learning at both overarching and operative levels in two WPDPs, and to study learning in five supported organizations (as described below under ‘Research Design’).

Furthermore, the interactive research approach gave me access to the meetings between stakeholder representatives, and permitted both interviews and seminars with the representatives. It is important to get this close to a study object, in order to gather sufficient information to be able to present the case fully. This is only possible when the researcher is ‘let in’ (Yin, 2018). I was given access to the overarching and operative levels of both the TE and MI-WPDPs, but because I studied the MI-WPDP for a longer period, I approached more closely what later became the main case (see the section describing the research design). Furthermore, starting the research process with an interactive research approach permitted a multiple-source triangulation (Yin, 2014; Bryman, 2004). Data from interviews (transcripts) and from meetings (notes) gave a rich account of learning in WPDPs.

Researcher role

My role as a researcher changed from being dependent on other researchers and practitioners to being able to make my own decisions when designing the thesis. During the data collection, I was employed as a researcher assistant by a research and development (R&D) centre.¹⁹ Together with other researchers, I communicated with contact persons in the WPDPs and WPDP-supported organizations. My work tasks included planning data collection, constructing interview guides and questionnaires, conducting interviews and distributing questionnaires, carrying out the initial analysis, and writing research reports. I also planned, carried out and documented seminars, during which interviewees or respondents discussed the reports. Thus, I was involved in the collection of considerably more data from the WPDPs and supported organizations than necessary for the work reported here. In addition, I had a coordinating role in the study of organizations supported by the

¹⁷ The first version of a figure illustrating the chain of functions was published in 2009 (Halvarsson & Öhman Sandberg, 2009). Later it was developed further in various interactive research projects, including the TE, MI and PS-WPDPs.

¹⁸ However, the earlier developed chain of functions for sustainable programme development was used to describe stakeholder representatives’ views on weaknesses and strengths of the organization of the TE- and MI-WPDPs.

¹⁹ Apel Research and Development, where I was employed from March 2006 until February 2015.

PS-WPDP. I contacted and prepared studies together with contact persons in four supported organizations and two organizations that were part of the WPDP network.²⁰ Furthermore, I maintained contact with the programme manager, the steering board and the consultant network. During the project, I and other researchers reported research results to a steering committee and a consultant network at regular intervals. I was also responsible for organizing two national seminars for participants from the seven studied public service organizations connected to the PS-WPDP. During the seminars, other researchers and I presented results from questionnaires and interviews that representatives from the organizations discussed. Subsequently, part of my researcher role was to assist in other studies, conducted by other researchers, both doctoral students and senior researchers (e.g. Brännmark & Benn, 2012; Brännmark & Holden, 2012; Brännmark & Eklund, 2013; Brännmark *et al.*, 2013; Eklund, Halvarsson & Lindskog, 2015; Lindskog, 2016; Öhman Sandberg, 2014). Because of this, the reader will find that I occasionally refer to reports from other studies written by my colleagues.

I designed the sub-studies (1-4) after collecting the data.²¹ I designed the licentiate thesis (summarized in Sub-study 1) first, and the three other sub-studies (2-4) 2-4 years after Sub-study 1.²² Thus, my researcher role had changed: I had initially participated in and coordinated interactive research projects connected to the WPDPs, whereas I subsequently took on a more independent researcher role. Because I had been involved in the various work tasks, I was able to choose which data to select and which data to discard. Among the discarded data is data that other doctoral students have used and data of a quantitative character (see the references in the section above). I ended up selecting mainly data that I had collected. (More details are given below in the data collection section).

In summary, the circumstances described above have been both encumbering and advantageous in preparing the thesis (as will be elaborated further on). The following section describes the research design of the overall study (the thesis) in more detail.

²⁰ Another researcher maintained contact with a fifth supported organization. A total of seven public service organizations were studied.

²¹ Sub-study 4 was designed mainly by my co-author/principal supervisor, and I contributed to the procedures used and to the construction of interview guides. In addition, three follow-up interviews were conducted – see the section below that describes data collection.

²² More precisely, vis-à-vis the time frame of the WPDPs: sub-study 1 was designed at the very end of programme period 1 in the MI-WPDP and 3 years after the last data collection in the TE-WPDP. Sub-study 2 was designed 6 years after the last data collection in the MI-WPDP; Sub-study 3, five years after the initial data collection (not follow-ups) in the social welfare department and Sub-study 4 before the data collection in the SMEs.

Research design

The thesis has a qualitative multiple-case-study design (Yin, 2018), with a main case and two additional cases.

The manufacturing industry WPDP is the main case in the overall study, and both the overarching and operative levels of the programme and supported organizations were studied. The teacher education and public service organization WPDPs are additional cases, in which either the overarching/operative levels or the supported organizations were studied. Figure 1 illustrates this.

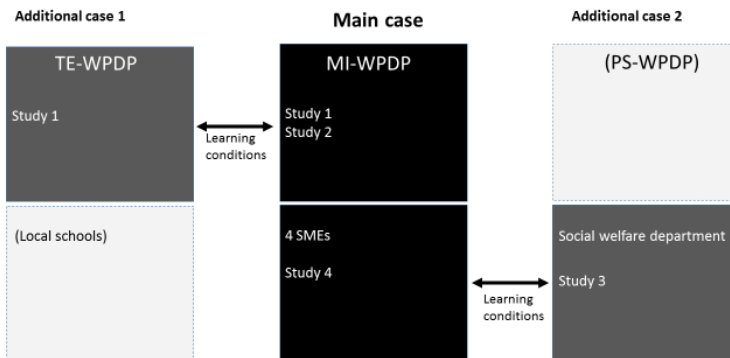


Figure 1. The connections between the main and additional cases.

Figure 1 illustrates the connections between the main case and the additional cases, and shows in which sub-studies they are included. The main case, which encompasses both the overarching and operative levels of the MI-WPDP (top black box) and four of the supported SMEs (bottom black box), is located centrally. Three of the sub-studies (1, 2 and 4) draw from data collected in the MI-WPDP. The first additional case is the TE-WPDP, in which the overarching and operative levels were studied (top dark-grey box to the left). Sub-study 1 uses data collected in the TE-WPDP. The double-headed arrow between illustrates a comparison and contrast of learning conditions between the overarching and operative levels of the MI-WPDP and the TE-WPDP. The second additional case is the PS-WPDP, which focused on the social welfare department (bottom dark-grey box to the right). Sub-study 3 uses data collected in the social welfare department. The double-headed arrow illustrates a comparison between the social welfare department and SMEs supported by the MI-WPDP (i.e. a comparison between the learning conditions found in the social welfare department and the learning conditions found in the SMEs). The light-grey boxes indicate that background information was collected for the overarching and operative levels of the PS-WPDP and the local schools that participated in the TE-WPDP.

Design of sub-studies

Table 1 summarizes how the sub-studies are connected to the main and additional cases, their design, focus, from where data was selected, and the factors that enabled the data selection.

Table 1. Design of sub-studies.

	Sub-study 1	Sub-study 2	Sub-study 3	Sub-study 4
Case(s) in overall study	Main case and Additional case 1	Main case	Additional case 2	Main case
Design of sub-studies	Qualitative multiple-case study (2 cases)	Qualitative single-case study	Qualitative single-case study	Qualitative multiple-case study (4 cases)
Focus	Comparison of conditions for learning at overarching and operative levels of WPDPs	The roles and characteristics of brokers in a WPDP	Conditions for learning in the social welfare department	Comparison of conditions for learning in the SMEs
Selection of data collected at/in	Overarching and operative levels of the MI-WPDP and TE-WPDP	Overarching and operative levels of the MI-WPDP	The social welfare department supported by the PS-WPDP	The four SMEs supported by the MI-WPDP
Enabled data selection	Closeness to both cases enabled by WPDP funders	Access to various meetings for a period of three years	Casual contact with department for three years	No selection made (regarding SMEs supported by the MI-WPDP)

Design of Sub-study 1

Sub-study 1 includes the main case and Additional case 1. The approach was a multiple-case-study design (Yin, 2014) with two cases, encompassing the overarching and operative levels of the TE and MI-WPDPs. The selected data included transcripts from 31 interviews from the TE-WPDP (three interview sets) and 45²³ interviews with 32 persons from the MI-WPDP (four interview sets). The data included also notes from eleven formal meetings, including seminars organized by researchers and meetings organized by the WPDP management or funders (see the section below that describes data collection). The data enabled the identification of learning conditions that seemed to enable or constrain the development of the respective programme. Sub-study 1 is not as firmly set in social learning theory as the other sub-studies²⁴, and thus I only use the findings regarding conditions for learning in the present study.

²³ An incorrect number of 44 interviews was stated in the book chapter.

²⁴ The licentiate thesis (Halvarsson Lundkvist, 2013) described learning and changes made during the development of the TE and MI-WPDPs, and I mentioned researchers such as Engeström (1987) in the Vygotskian tradition, and authors inspired by Dewey (1916) when conceptualizing this. However, I

The funders had, as previously described, placed certain conditions on the work, and this provided the close access I needed to select the data that enabled me to analyse the conditions for learning. I was also able to select the most important processes, and these were used as examples in Sub-study 2. The closeness also allowed note taking during or after both formal and informal meetings in the WPDPs, which gave me ample background information. Working with the initial analyses of the research reports gave me valuable insights in my selection of data.

The licentiate thesis summarized in Sub-study 1 set the scope of the following sub-studies. I wanted to gain more knowledge about the roles of persons who acted as brokers between the communities of practice in the stakeholder organizations, and I wanted to learn more about conditions for learning in the supported organizations.

Design of Sub-study 2

Sub-study 2 encompasses only the main case. It was a qualitative single-case study (Yin, 2014) covering the overarching and operative levels of the MI-WPDP. The data consisted of four sets of interviews (in total 45 interviews with 32 individuals), and notes from eleven meetings. The data enabled further inquiries into the roles and characteristics of representatives of the collaborating stakeholders, and into the negotiations between them. This was important to be able to say something about the social learning systems of WPDPs.

The design of Sub-study 2 was possible because of the ample background information that helped to identify two major processes in the development of the WPDP. The first process was the development of the coaching method, while the second was scaling up and sustaining support to SMEs. Furthermore, the background information enabled the selection of notes from meetings to use as data. Again, the demands from the funders enabled me to get close to the research objects, and I became a familiar face in the MI-WPDP. WPDP actors paid surprisingly little attention to the fact that I was there to study them. Because I had been 'let in', I was able to get a sense of the development work at the overarching and operative levels of the WPDP, which enabled the selection of data.

Design of Sub-study 3

Sub-study 3 encompasses Additional case 2, and focuses on one of the organizations that received support from the PS-WPDP. It was a qualitative single-case study, which enabled me to investigate the conditions for learning during a large change effort in the social welfare department. This case study included two sets of interviews. The first set comprised 20 interviews with key persons in the change

found that the learning cycle I used presupposed set steps that followed each other, and although I found that various conditions affected whether a full cycle (change) was made or not, it was not possible to determine the roles played by the various persons involved in the process. (It was, however, clear that certain functions were important for something to happen.)

effort (their functions are described below in the section describing data collection) and four first-line managers. In addition, two follow-up interviews were conducted five years after the initial ones. The material from the first set of interviews enabled investigations into both learning conditions during the change effort, and the support provided by the PS-WPDP. The second set of interviews investigated how the change effort had progressed after the initial interviews. The follow-up interviews allowed me to obtain retrospective thoughts about ‘the Lean investment’ from two persons closely involved in it.

The social welfare department was selected out of the seven studied organizations because it was a clear case of a predominantly restrictive learning environment. This distinction was possible because I had conducted interviews in six of the seven studied organizations, asking questions about what constrained and what enabled the development (or changes) towards continuous improvement.²⁵ Furthermore, contacts with employees in various work units had been established during other studies. Those interviews focused mainly on the working conditions of employees, and consequently the transcripts were not selected as data for the sub-study. In addition, I remained in contact with persons in the department for three years when conducting other studies. From this contact, I came to suspect that the Lean investment had slowly withered away, and this prompted the follow-up interviews. The studies in the social welfare department did not allow the same closeness as that achieved in the MI-WPDP because I had no access to internal meetings. The distance was somewhat mitigated by organizing a seminar in the department in which a research report and the change effort were discussed.

Design of Sub-study 4

Sub-study 4 lies within the main case as it encompasses four organizations supported by the MI-WPDP. It has a qualitative multiple-case design. Four persons in each SME and their Lean coach, who was employed by the MI-WPDP, were interviewed. Sub-study 4 was designed to investigate why some development interventions contribute to the desired effects in SMEs and others do not. The conditions for learning in each of the SMEs were identified, then compared and contrasted with the other SMEs.

Sub-study 4 was intentionally designed for the thesis from the start. The sub-study investigated the support that had been provided by the MI-WPDP (and another WPDP not included here). As pointed out, the prior in-depth knowledge of the MI-WPDP enabled me to ask specific questions about strengths and weaknesses in the WPDP support. This case study was designed three years after having left the overarching and operative levels of the MI-WPDP. I no longer had contact with the WPDP and thus, collaboration between the researchers and representatives of the overarching/operative levels of the MI-WPDP did not influence the

²⁵ As previously noted, learning and development are closely connected.

design. This chapter will now describe the data collection and data analysis carried out in the sub-studies. First, features relevant to all sub-studies are elaborated, then features specific for each sub-study.

Data collection

In Studies 1-4, data consisted of interview transcripts and notes from various meetings.²⁶ Table 2 presents an overview of the data collection.²⁷

Table 2. Overview of data collection.

Sub-study 1	Sub-study 2	Sub-study 3	Sub-study 4
<p>First set TE-WPDP: 13 interviews Persons involved in developing the TE-WPDP</p> <p>Second set TE-WPDP: 15 Interviews* Persons representing stakeholders within and outside the university</p> <p>Third set TE-WPDP 3 interviews Persons representing the funder organization</p> <p>+ All sets of interviews in Sub-study 2</p> <p>Notes from**: 5 meetings organized by programme management</p> <p>4 meetings organized by funders</p> <p>7 seminars organized by the researchers</p>	<p>First set MI-WPDP: 25 interviews, of which 10 by phone Persons involved in developing the WPDP</p> <p>Second set MI-WPDP: 8 interviews, of which 7 by phone Persons involved in the development of the WPDP</p> <p>Third set MI-WPDP: 11 telephone interviews Persons involved in the development of the WPDP</p> <p>Fourth set MI-WPDP: 1 telephone interview (follow-up) Programme director</p> <p>Notes from: 6 meetings organized by programme management</p> <p>2 meetings organized by funders</p> <p>3 seminars organized by the researchers</p>	<p>First set social welfare department: 20 interviews Persons involved in or indirectly influencing the change effort</p> <p>Second set social welfare department: 2 interviews (follow-ups) Persons in charge of the change effort and an internal Lean coach</p> <p>Notes from: 1 seminar organized by the research group</p> <p>Documents: Documents describing the 'Lean investment'</p>	<p>Only set SMEs: 17 interviews In each enterprise, an operator, a Lean coordinator, a production manager and the CEO (or similar) A Lean coach employed by the MI-WPDP</p>

*2 group interviews were not noted in the book chapter, only in the licentiate these. The correct number is 15 interviews.

** As described in the licentiate thesis. The book chapter does not specify the exact number of meetings organized by the programme, and it defines three of the meetings organized by funders as 'analysis seminars'.

²⁶ In Sub-study 3, documents regarding the 'Lean investment' were also noted as data.

²⁷ See each separate sub-study for full descriptions of Sub-studies 2-4 and the licentiate thesis (Halvarsson Lundkvist, 2013) for a full description of Sub-study 1.

Table 2 shows that 115 interviews are included in the data, of which I conducted 109²⁸. Some persons were interviewed more than once. The collected data derives from three sets of interviews in the TE-WPDP, four in the MI-WPDP, two in the social welfare department, and one in the four SMEs.

The notes were taken at various meetings and seminars throughout the duration of the TE and MI-WPDPs, and at a seminar in the social welfare department. Notes from the workshop with the SMEs were not used as data. The observations of the meetings organized by one or more of the stakeholders were mainly of a non-participatory nature, although I would participate in casual talk during breaks, etc. Observations from the seminars that the researchers (often me) organized were of a more participatory nature. However, when the participants discussed ongoing development of the WPDPs or the social welfare department, the role that I and the other researchers took was to lead the discussions, not to give advice. When I lead the discussion, other researchers took notes, and when others lead the discussion, I took notes. The use of the analytical models in the discussions may have influenced future decisions regarding their respective organizations. The observations were always overt, albeit unstructured, in the sense that I had not designed the sub-studies when the notes were taken. Thus, the notes were not made explicitly for the sub-studies or overall study.

In addition, field notes from meetings with persons working to develop WPDPs, which were not part of the main data, were used as background material. The field notes are of differing character. Some field notes were structured as personal reflections on meetings that I had attended. Others were notes to remember conversations with contact persons about various practical issues concerning data collection, etc. I also wrote minutes at researcher meetings and meetings with representatives of the WPDPs or WPDP-supported organizations. The minutes were sent out to those who attended the meetings. In addition, various documents were gathered and read as background material. Figure 2 illustrates the original studies and the sets of interviews from which the data was selected.

²⁸ A doctoral student conducted three of the interviews in Sub-study 3. Another researcher (co-author of the article that makes up Sub-study 4) conducted six of the interviews for Sub-study 4, and a further researcher interviewed the MI-WPDP coach for Sub-study 4.

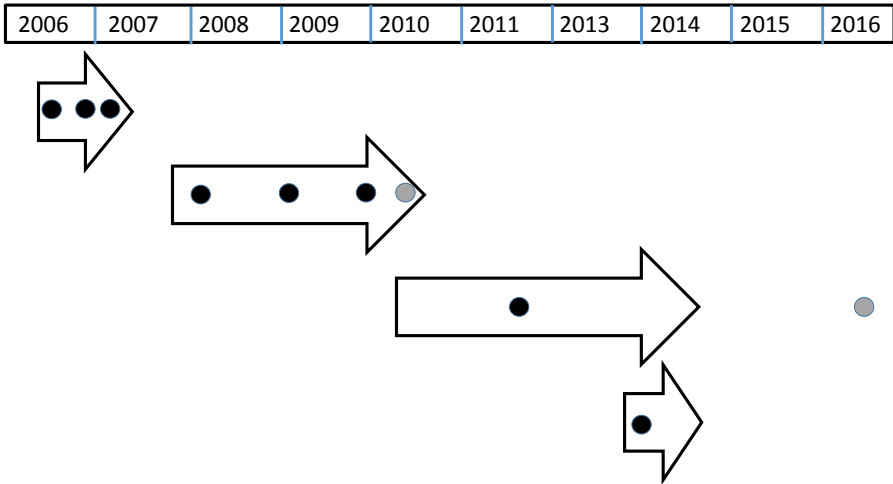


Figure 2. Schematic illustration of interviews.

Figure 2 shows schematically the time frames in which the data was collected. The arrows show when the WPDPs were studied, and the black dots indicate when each set of interviews was conducted. The grey dots are follow-up interviews. There were more sets of interviews, but the transcripts from these were not selected as data in any of the sub-studies. The meetings were observed throughout the research process, and seminars were usually organized after each set of interviews (not the follow-ups).

All interviewees received information about the research projects and their aims before and during the interviews. At the start of each interview, the interviewees were informed that participating in it was non-compulsory and that they could terminate it at any time, should they wish to do so. They were also informed that their answers were confidential to some degree, but that other persons familiar with the development of the respective WPDP or change effort might be able to detect who had said what.

Procedures during data collection for Sub-studies 1 and 2

The number of interviews was not pre-set before the data collection in the TE and MI-WPDPs. Two reasons for this were: 1) that the interviewees were selected in collaboration with the WPDP director/manager, and 2) that problems, including discontinuities in the development of the respective programme, would direct the focus of future studies. Both of the directors were well acquainted with the ongoing development work. Only people involved in the development of the WPDP were selected as interviewees. This criterion was important, since it allowed me to get close to the study object.

Semi-structured interview guides (protocols) were used. The themes in the interview guides were similar, but not identical, in the two WPDPs. In both WPDPs, questions regarding the interviewee's role, which meetings they attended and who else attended them were asked, along with questions about ongoing collaborative processes and possible emerging risks in them.

The average duration of an interview was 50 minutes. None was shorter than 40 minutes, none longer than 80 minutes, and they had the nature of a conversation. The average length of the telephone interviews was lower than that of the face-to-face interviews. During the interviews, the interviewees were free to expand on the questions as they wished. The interviewer mainly interrupted to ask questions when an answer needed clarifying or when the conversation strayed outside the themes. As a rule, the interviews were voice-recorded.²⁹

Slightly summarized transcripts of the interviews were sent to each interviewee less than a week after the interview and they were asked to add, rephrase or comment on the transcript. Only a few changes were made, none of which changed the content, only wording, etc. Quotations used in the studies were used with the permission of the interviewee.

Notes were taken when the interviewees attended meetings in the TE and MI-WPDPs. During the meetings, the development of the WPDPs was discussed among the participants, and several subjects came up, including the development of the support to organizations, and how to sustain and scale up this support. On most occasions, what was said was typed on a computer, in part verbatim and in part summaries. However, on two occasions, hand-written notes were typed out later the same day. These notes mainly contained summaries and only a few verbatim quotes. The notes varied in size from 3-10 typed A4-pages. Other research team members who had been present at a meeting contributed their notes.

Procedures during data collection for Sub-study 3

Procedures for Sub-study 3 differed slightly from the procedures for Sub-Studies 1 and 2. The person in charge of the change effort assisted in selecting interviewees. The researchers set the criteria for selection, which were that the interviewees possessed key positions in the social welfare department or were first-line managers in different types of operations. The first-line managers were to have shown an interest in implementing Lean. Five years after the initial interviews, two follow-up interviews were conducted. The representatives of the complete chain of command participated in interviews, from first-line managers to the municipality director.

The interviews had durations of 60-120 minutes, and were held in the social welfare department. The interviewees were free to expand on the questions as they

²⁹ Seven interviews in the MI-WPDP were not recorded, because of technical difficulties.

wished. The interviewer mainly interrupted to ask questions when an answer needed clarifying or when the conversation strayed outside the themes. All interviews were voice-recorded and transcribed. The transcripts were in part summaries of the interviews, in part verbatim.

In the follow-up interviews, the interviewees were asked to view the change effort in retrospect and describe major events that took place after the initial interviews. Questions about the support from the PS-WPDP were also asked. The questions were: Did you employ consultants from the PS-WPDP network or from elsewhere? Did the PS-WPDP support you in any other way than through its courses? Do you have any other information about the PS-WPDP that you would like to share? (Table 3 describes the topics covered in other interviews.)

The notes taken at the seminar in the social welfare sub-study were typed during the seminar. The notes (7 A4 pages) were partly verbatim and partly summaries. During the seminar, different aspects of the change effort were discussed. The major topics were employee and first-line manager participation in the change effort. Other topics were how to sustain any changes that were made, and whether there was learning between people with different functions at different levels in the department or not.

Furthermore, documents that described plans for the 'Lean investment' and its organization were read.

Procedures during data collection for Sub-study 4

In Sub-study 4, one of the Lean coaches employed in the MI-WPDP assisted in the selection of the four SMEs. The researchers set the criteria that an SME must have taken an active part in MI-WPDP activities and that SMEs from a range of contexts, such as types of product manufactured, ownership and size, must be included. Another criterion was that the Lean coach must have assessed the coaching as successful, but not problem-free.

The researchers selected functions from the SMEs to interview. The CEO (or similar), a production manager, a Lean coordinator (or similar), and an operator each SME were interviewed. It was important to cover the complete chain of management, from employee to CEO, and to interview those who were to facilitate employee learning, in order to gain information about the conditions of learning.

Interview guides were used. Some of the themes in the guide for the SMEs were similar to those for the social welfare department, in that questions about contextual conditions during the implementation of continuous improvement were posed. However, the questions in the interview guide used for SMEs had more and deeper questions concerning the competence-development activities provided by the WPDP. Thus, more information about the WPDP was obtained from the SMEs than from the social welfare department.

The durations of the interviews were 40-70 minutes, and they took on a form similar to that of a conversation. The interviewees were free to expand on the questions as they wished. The interviewer mainly interrupted to ask questions when an answer needed clarifying or when the conversation strayed outside the themes. All interviews were voice-recorded and transcribed verbatim.

Table 3 gives an overview of the content in all of the interview sets.

Table 3. Overview of contents in interviews

TE-WPDP	MI-WPDP	Social welfare department	SMEs
<p>3 sets of interviews: About the WPDP organization and who 'owned' and steered the WPDP. In addition, about what was developed and what were the expected results. Also about collaboration with partners outside the university</p> <p>About collaboration and learning between stakeholders of the WPDP, including conditions enabling or constraining the participation of different stakeholders in developing the programme and the specific purpose of 'the reference group'</p> <p>About evaluations of programmes in general, about interactive research in the TE-WPDP, How knowledge from evaluations and research is used when initiating new programmes</p>	<p>4 sets of interviews: About programme content, organization and on-going processes</p> <p>About conditions for, and interest in, cooperation among partners at the operative level</p> <p>About the organization of programme activities and reflections about future collaboration</p> <p>About continued work in the programme and a retrospective view of the initial cooperation</p>	<p>2 sets of interviews: About the organization of a change effort, including conditions that enabled or constrained it, and the immediate results from it</p> <p>About sustaining what had been built during the change effort, and a retrospective view of events that took place during it. Also, questions about the WPDP support</p>	<p>1 set of interviews: About competence-development activities provided by the WPDP, contextual conditions, learning opportunities, measurement and follow-ups, improvements and effects, and future plans/expectations</p>

The next section describes the data analyses, beginning with the sub-studies. A few notes on the subsequent analyses applied to the overall study follow.

Data analyses in the sub-studies

All sub-studies rest on qualitative content analyses (Bryman, 2004), which were used to make a subjective interpretation of the data (the interview transcripts and the notes from seminars and meetings).

Conventional qualitative content analysis is a well-established method to find patterns and to codify them by a systematic classification process. The advantage of the method is that the data is sorted into categories that have not been predefined

(Hsieh & Shannon, 2005). I expected to find in the analyses key contextual conditions that were relevant to my cases (Yin & Davis, 2007), that is, the learning conditions in which I was interested. Having identified the conditions, patterns were detected and the conditions were pieced together in different categories.

Furthermore, the patterns relating to learning conditions that emerged in the sub-studies were analysed utilizing the conceptual framework of the relevant study. The workplace-learning theory provided concepts, enabling an in-depth view of the learning in WPDPs and by means of WPDPs (i.e. learning in supported organizations). In addition, social learning theory, the role of which is, according to Wenger-Trayner (2013), to propose conceptual perspectives, opened up new ways of viewing WPDPs.

Data analysis in Sub-study 1

The data analysis for Sub-study 1 was conducted when writing the licentiate thesis. For Sub-study 1, four research reports written for the TE-WPDP and six for the MI-WPDP were analysed, together with notes from seminars organized by actors in the WPDPs or by the research team. The original interview transcripts were consulted for more information about events or the roles of people in the WPDPs, when necessary. The procedure was the following:

The first analysis step identified how learning activities (meetings) were organized in the TE and MI-WPDPs. In the second analysis step, learning activities were identified in which problems related to the organization of the WPDP or to collaboration between the stakeholders had been discussed. Third, meetings that seemed to drive the development of the WPDP forward, immediately or shortly after the learning activity, were identified and separated from those with similar content (discussions) that did not drive the development forward. Finally, conditions that seemed to have affected the learning and development process before, during and after the learning activity were identified. Altogether, the analysis steps contributed to identifying some conditions that seemed particularly important to develop the WPDPs.

Data analysis in Sub-study 2

In the preliminary analysis of the research reports, two main developments had emerged (the coaching method, and turning the WPDP (or parts of it) into a more permanent organization). The 31 interview transcripts (which were the same as those used in Sub-study 1) were read again, now with a focus on who was involved in the meetings and in which groups they met. Through this, broker encounters at different levels of the MI-WPDP were identified, and the roles they had played in the development of the WPDP were described. To distinguish between when the brokers made sense of the development of the WPDP (identification or reflection)

and when they took action during the development (coordination or transformation), Akkerman and Bakker's (2011) analysis model was used. This allowed us to identify different broker characteristics at different levels.

Data analysis in Sub-study 3

The qualitative content analysis in Sub-study 3 was based on interview transcripts and notes taken at the seminar in the social welfare department. First, conditions during the change effort were sorted into two categories – internal and external conditions. Second, the internal and external conditions were sub-categorized as conditions that enabled or constrained the change effort, using the theoretical framework of expansive-restrictive learning environments (Fuller & Unwin, 2004). Themes emerged during the analysis process that demonstrated key conditions for employees' learning when the concept of continuous improvement was introduced into their everyday work. The themes were: 1) initial implementation, and top-management steering and monitoring of the 'Lean investment', 2) activities and support provided by the WPDP, 3) activities and support provided by the internal Lean support team, and 4) first-line managers' ability to facilitate learning for employees. The follow-up interviews (Table 2) provided information about a lack of documented effects of the change effort, and added a retrospective view of the change effort.

Data analysis in Sub-study 4

The data analysis, based on the interview transcripts, was carried out in two steps. First, the transcripts were read to obtain a general understanding of the material and to define categories of the conditions for learning. The categories were: 1) competence-development activities and support by the coach provided by the WPDP, 2) organizational conditions, 3) employees' commitment and engagement, and 4) the development of an internal support structure. Then, the four enterprises were compared. The comparison consisted of investigations into how the WPDP support was interwoven with everyday work activities, and what had enabled employee learning and employee-driven innovation. This comparison revealed structures to promote employee learning and innovation that were to remain after leaving the WPDP. The second step also gave insight into which part of the support provided by the MI-WPDP had contributed to strengthening the learning environments in the enterprises.

Ethical considerations

The research has been conducted according to Swedish law and according to the four ethical principles for social and humanities studies laid down by the Swedish Research Council. These concern information about the research, informed consent, confidentiality, and the use of data. The description of data-collection procedures above makes it clear how the ethical principles were applied. For the MI and

PS-WPDPs Swedish law did not require ethical committee approval. For studies in the supported organizations of the PS-WPDP, which included issues relating to health and the work environment, approval from the relevant ethical committee was obtained.³⁰

Discretion was key when working with the overarching and operative levels of the WPDPs, because this is an essentially political arena. I made clear that I was not at liberty to discuss what others had said, other than when presenting the views of different groups or stakeholders in seminars organized for that purpose. Furthermore, all of the quotations used in Sub-studies 1 and 2 were used with the permission of the interviewees, after they had read the quotation. This was important from an ethical standpoint, because some of the material depicts personal views on the WPDP development. Indiscrete dissemination of these views in research reports would possibly have hindered negotiations between stakeholders.

It is also important from an ethical point of view to balance different perspectives properly. There were occasions on which I felt that I was walking along a thin line between depicting different views, doing the views justice, and not omitting anything said in the interviews. From an ethical point of view, the presentation of those views must be clear and balanced, especially in the initial research reports. I selected quotations for the sub-studies with that balance firmly in mind.

³⁰ The Regional Ethical Committee of Linköping (no. 2011/226-31)

6. SUMMARIES OF SUB-STUDIES

This chapter comprises summaries of the peer-reviewed book chapter (which reports the major findings of the licentiate thesis (Halvarsson Lundkvist, 2013) and the three scientific articles that make up the thesis' empirical base (Sub-studies 1-4).

Sub-study 1: Programme steering by learning

The purpose of Sub-study 1 was to demonstrate the need for learning-oriented models to steer complex change programmes.³¹ The study focused on learning that took place in different meetings attended by persons who had different functions in the TE and MI-WPDPs (Additional case 1 and the main case).

The findings suggest that the MI-WPDP was developed more quickly than the TE-WPDP. Furthermore, many conditions were found in the WPDPs that have been identified as conditions that enable or constrain learning in other types of organization (e.g. Billett, 2006; Ellström, 2001; Fuller & Unwin, 2004; Kock & Ellström, 2011). The conditions were categorized into: 1) properties of the WPDP itself (its culture or structure), b) the traits of persons working to develop the respective WPDP (which the book chapter described as conditions required for learning), and, most importantly, c) the conditions found in learning activities (meetings) that were especially organized to promote the development of each WPDP. The conditions for learning found during the learning activities seemed to be particularly important for incremental changes in the development of the WPDPs.

Tools, such as reports on progress, problems or any disagreements between stakeholders during the development process, and conceptual models framing the analyses of the current situation seemed to promote incremental changes in the WPDP development, but only if the persons involved in the particular process being analysed were present. In addition, if the incremental changes were to come about, distinct steering (through a sufficient plan that guided the change steps, or through a steering group/board that could make decisions on which path to take) was required. Thus, it seemed that a sufficient amount of organized learning activities was required. More precisely, four patterns of movement in connection to the organized learning activities and incremental changes in the development of the WPDP emerged:

³¹ As mentioned in the introduction, the licentiate thesis aimed to contribute to knowledge about programme development through learning, and about the dynamics of, and conditions required for, such learning.

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1. immediate steps of action based on a plan and participants engaging mainly in adaptive learning (guided by the content of the written plan)
 2. immediate steps of action taken, or authorised, by a present steering board or steering group, which seemed to require developmental learning
 3. no learning (in regards to WPDP development) and, as a consequence, no steps taken because of a lack of guidance in the programme plan or a non-functioning steering facility, or
 4. a delay (up to a year) before any steps were taken.

In the case of pattern 4, the delay arose when a steering facility did not have a mandate to make decisions about future actions, or if members of the steering facility were not present at the meeting, and there was no guidance to be found in the programme plan. This was the case, even when there were signs of developmental learning. Thus, the discussion from several meetings between persons with different roles in the WPDPs often had to be linked together.

Two examples illustrate particularly clearly why the MI-WPDP developed more rapidly than the TE-WPDP. The first is from the TE-WPDP. The teacher educators had no allocated time in which they could participate in competence-development activities. Thus, an important incentive was missing. However, because the steering group did not have the authority to demand that the department managers allocate such time, nothing could be done about the situation, and this delayed the development of the TE-WPDP. The other example is from the MI-WPDP. During the development of the coaching method, a problem with copyright arose. Although the coaches knew what would solve the problem, the actions required were out of their jurisdiction, and they needed help from steering board members to solve it. Some steering board members took it upon themselves to negotiate with the partners, applying pressure to waive the copyright.

A conclusion in the Sub-study 1 was that ‘steering by plan’ was sufficient for less complex issues, whereas ‘steering by learning’ was required in complex matters and in situations in which many functions were involved in the decision making. The findings demonstrated a need for learning-oriented models to steer complex WPDPs, and showed that the long-term endurance of a WPDP depended on obtaining constant results from incremental changes. Nevertheless, ‘steering by learning’ is time-consuming and thus costly, and thus a well-balanced combination of both forms of steering was suggested in Sub-study 1.

Sub-study 2: The role of brokers in a workplace development programme targeting SMEs

The purpose of Sub-study 2 was to investigate the development of a WPDP targeting SMEs (the MI-WPDP) by focusing on the people who acted as brokers providing cross-boundary connections between its collaborating partners. The study investigated two research questions: 1) In what meetings and for what purpose did brokers meet to develop the WPDP? 2) What roles did the brokers play at different levels in the WPDP to provide cross-boundary connections between the collaborating partner organizations? The setting was the MI-WPDP (the main case).

Encounters in the form of formal meetings between persons acting as brokers took place in various groups at different levels of the WPDP (operative, strategic, and national). In addition, persons who formally had a broker role, or took on such a role, attended meetings of one or more groups in which they created cross-boundary connections between the stakeholder organizations. The findings indicated that the characteristics of persons who acted as brokers were important, because the brokers enabled the collaborating partners to move forward from making sense of things (talking about how to collaborate or how to develop the WPDP) to taking action (making necessary changes to develop the WPDP).

Different sets of broker characteristics were required to move from making sense of things into the action mode, depending on the level of the WPDP at which the brokers built the cross-boundary connections. Brokers at the national level (which is referred to as the ‘overarching level’ in the thesis) provided monetary resources to operate the WPDP. Thus, the necessary characteristics for brokers at the national level was the possession of a mandate or authority gained through holding a central position as a decision maker in the organizations they represented. This enabled them to negotiate how best to allocate resources, and to sustain and scale up the WPDP support, a task that at times involved politics.

The most important characteristics for brokers at the operative level seemed to be professional expertise, and a desire to work at the boundaries of their own organizations to create new ‘things’ with other brokers. These characteristics allowed the brokers to combine elements of coaching into a new coaching method, unique to the WPDP. However, brokers at the operative level were at times unable to take the actions necessary to develop the coaching methods, although they were able to make sense of the problem that prevented them from doing so. This was because they did not have a mandate or sufficient authority to act. Thus, brokers who were members of a steering board at a strategic level (which was portrayed as a level between the overarching and operative levels) negotiated between the WPDP partners who operated the programme, so that actions at the operative level could be taken to develop the WPDP support promptly. In addition, brokers in a ‘future group’, which had been formed at the strategic level, made sense of how to sustain the WPDP support, before turning to brokers at the national level to discuss this issue.

Important characteristics for brokers at the strategic level were general brokering skills, a sufficiently deep engagement, and, most importantly, a central position, or personal connections to persons in central positions, in the collaborating organizations that were stakeholders in the WPDP.

Some brokers provided cross-boundary connections not only between the partner organizations, but also between the different levels of the WPDP itself. This type of broker seemed to be an identifier of boundaries between the collaborating organizations or between the different levels of the WPDP. They used their personal relationships with other brokers who had central positions in stakeholder organizations to be able to detect the boundaries and cross them. Furthermore, they had acquired advanced brokering skills through the years, and they attempted to build trust across the different levels. Such brokers had an interest in developing the manufacturing industry.

In Sub-study 2 it was concluded that the roles and characteristics of brokers were paramount to providing cross-boundary connections between the collaborating organizations within each level, and between levels. The latter connections were particularly important in scaling up the joint venture, which was necessary to ensure that the newly developed competence activities that made up the WPDP support to the SMEs could be used beyond the temporary WPDP. One important practical implication was that stakeholders in a WPDP must engage individuals who are adequately equipped and willing to take on a broker role and to make cross-boundary connections at single levels of a WPDP and between them.

Sub-study 3: Learning conditions for continuous improvement in a public service organization

The aim of Sub-study 3 was to explore the conditions (internal and external) that enabled or constrained employee learning during the introduction of continuous improvement into employees' everyday work in a WPDP-supported social welfare department.

In the previously mentioned change effort entitled 'the Lean implementation', continuous improvement was to be integrated with the employees' everyday work. The plan was for first-line managers to be key players in the 'Lean implementation', as they were to introduce and continue supporting the employees as they adopted to the new work practice. To be able to do so, the first-line managers attended a course provided by the PS-WPDP. In addition, internal Lean coaches, also educated by the PS-WPDP but employed by an internal Lean support team, were to coach the first-line managers.

Four major categories of condition were found to have shaped the learning environment in the social welfare department. The conditions were related to: 1) the initial implementation and top management's steering and monitoring of the 'Lean investment', 2) activities and support provided by the WPDP, 3) activities

and support provided by the internal Lean support team, and 4) first-line managers' abilities to facilitate learning for the employees. In each category, several constraining conditions were found. Thus, most of the conditions identified restricted the learning environment for the first-line managers. Thus, the plan failed, despite the good intentions of the social welfare department.

The reason that the Lean investment failed seemed to be because top managers had not taken part in designing the 'Lean investment', nor did they monitor or steer it. Instead, the manager of the Lean support team was asked to both design and steer the change effort – a job in which this person felt very much alone. The findings of Sub-study 3 revealed that the top management had become decoupled as a consequence of a decision taken by politicians to split the department into two divisions: one to procure the services and one to be operative. In addition, the PS-WPDP that supported the social welfare department provided courses that were generally not integrated into the everyday work of the participants (the managers and Lean coaches). The Lean support team could not support the first-line managers in introducing the continuous improvement for the employees. In addition, the findings show that first-line managers found themselves without sufficient resources to allow them to follow through and provide sufficient support to their employees.

Overall, the Lean coaches and managers stated that they were not adequately educated or trained to introduce continuous improvement in the workplace (although they did feel that they had learned some things). The assignment of the first-line managers had been to facilitate the employees' learning and to continue to do so. This meant that the same conditions also shaped the learning environment for the employees. In retrospect, the Lean support team manager expressed a lack of partners in both designing and operating the 'Lean investment'.

In Sub-study 3, it was concluded that joining a WPDP does not guarantee a successful change effort in a public service organization, and that a WPDP may mitigate conditions that are unfavorable in the organizations it supports by helping them to organize the change effort and the internal support infrastructure. Thus, it was advocated that a WPDP should integrate its activities into the everyday work of the persons who participates in it, regardless of their function in the organization. This way, the top management and other functions may contribute to shaping an expansive learning environment for both facilitators of employee learning and the employees.

Sub-study 4: Conditions for employee learning and innovation

The aim of Sub-study 4 was to investigate how the formal competence development activities provided by the MI-WPDP were interwoven with everyday work

activities, and to identify the conditions that enabled learning and employee-driven innovation that contributed to production improvements in SMEs.³²

The conditions for learning were categorized into four major categories: 1) competence-development activities and support provided by the WPDP, 2) Organizational conditions, 3) Development of an internal support structure and 4) Employees' commitment and engagement. An important condition that promoted learning, employee-driven innovation and improvement of production were that competence-development activities provided by the WPDP were interwoven with the everyday work of managers, facilitators of employee learning and employees by the WPDP Lean coach. As previously mentioned, a major form of competence-development activity in the MI-WPDP was university courses for managers and internal Lean coordinators. The MI-WPDP required that top managers engage in the Lean implementation, and recommended that a Lean steering group be formed for that purpose. During visits to the Lean steering group (or the management team), the Lean coach integrated the content of the formal courses into the work of designing the change effort, which included continuous improvement. Hence, the assigned WPDP Lean coach was responsible for the interweaving of course content with the practical change work of the top managers. However, all Lean coaches employed by the MI-WPDP were instructed to be flexible and adjust according to the contextual conditions in each of the enterprises. The contextual conditions differed between the SMEs, making flexibility necessary.

Further, the MI-WPDP promoted the development of an internal support infrastructure for employee-driven innovation that was to remain in place after the enterprise had received support from the WPDP. Different approaches to employee-driven innovation emerged in three of the SMEs. The first enterprise developed a *Lean coordinator approach*, in which an internal Lean coordinator worked in the same way as the Lean coach from the WPDP. The Lean coordinator became a link between the ideas and knowledge generated by the operators (employees) and the management. The management of the enterprises reserved the right to accept or reject the production changes suggested by the operators.

The second SME developed an *engineer approach*, in which engineers supported the employees in their innovative work by: a) acting as a link between the operators and the management, who had the final say in how the operators were to improve the production, and b) providing expert knowledge as engineers in the improvements of the production. This approach built on already existing structures of the enterprise.

The third SME developed a fully *operator-driven approach*, in which the management passed increasing responsibility for production improvements to the operators. The operators eventually came to handle the continuous improvement

³² Full title: Conditions for employee learning and innovation: interweaving competence development activities provided by a workplace development programme with everyday work activities in SMEs.

activities by themselves, supporting one and other. Consequently, the managers needed training to develop a more coaching leadership role.

Sub-study 4 pointed to the need for internal support for first-line employees tasked with improving work processes, and made it clear that such support may take different shapes or forms. Employee engagement was also important. Employee engagement seemed to grow with time, as the employees began to understand their roles in continuous improvement. The sub-study revealed that a WPDP with flexible work methods can build on already existing structures when supporting the development of an internal support infrastructure for employee-driven innovation. However, this requires that the WPDP activities are interwoven with the everyday work of employees, and requires other favourable conditions in the organization. The findings are discussed in the following chapter.

7. DISCUSSION

The overall aim of the thesis is to contribute to knowledge about learning in WPDPs and in the supported organizations when realizing policies on workplace development. The four sub-studies discussed different aspects of learning among stakeholders of WPDPs. This chapter brings them all together by focusing on the connection between learning and the realization of policies for workplace development. It begins with a general discussion of the need for learning in WPDPs. It then focuses on persons acting as brokers, and the need to enable learning conditions that promote workplace development. The discussion ends with some notes on WPDP support and some critical reflections on the quality of the study.

Realizing policies required continuous learning

Policies of workplace development are policies that aim to increase the operational performance of organizations by utilizing the innovative capabilities of the employees. The final goal is that employees improve or change work practices. However, the findings revealed that realizing policies on workplace development required also the use of the innovative capabilities of people with various functions or roles in other stakeholder organizations, at different levels of the WPDP, which led to changes in their practices. Only then could the development of workplaces in the supported organizations take place. This required both adaptive and developmental learning (Ellström, 2001, 2006) among representatives of stakeholders at different levels (or parts) of the WPDP, which may be seen as a large and complex social learning system (Wenger, 2010b).

The WPDP framework that connected the stakeholders in the MI-WPDP was the policy that was packaged into a programme plan, and further developed, before it reached the supported organizations in the form of competence-development activities and further plans for changes in work practices. Thus, learning was necessary because the original WPDP framework (Alasoini, 2008, 2016) had to be reshaped not only when new conditions emerged (Artto *et al.*, 2009; Pellegrinelli, 2011; Rijke *et al.*, 2014; Ritson *et al.*, 2011), but also for it to benefit or be of use to all stakeholders (Brulin & Svensson, 2012; Elg *et al.*, 2015; Freeman *et al.*, 2010; Laestadius, *et al.*, 2007; Majone & Vildavsky, 1984). This was a type of emergent governance (Wenger, 2010b) or ‘steering by learning’ (Sub-study 1), which incrementally re-shaped the framework. Nevertheless, the framework also made such learning possible because it comprised shared artefacts or possibly a shared boundary object, which were organic infrastructures that the stakeholders had in common although not always used for the same purposes (Star, 2010; Star & Griesemer, 1989). Some artefacts and boundary objects enabled governance of

the practices³³ it touched that was more of a stewarding type (Wenger, 2010b). In other words, it enabled ‘steering by plan’ (Sub-study 1).

The WPDP framework needed constant re-shaping to be accepted by the stakeholders

In the MI-WPDP, the re-shaping of the framework took place in all practices, from policy-making practices to work practices directly involved with the production of services or goods in the supported organizations. With time, in-between practices were developed when stakeholders worked together at the operative level (Wenger, 1998), which was exemplified by the coaching practice. Changes to the WPDP framework were also made in the supported organizations, by the practices of managers or employee-learning facilitators. Sub-studies 1 and 2 provided examples of modifications or changes to the WPDP framework as it passed through different levels or parts of the overarching and operative levels. The steps of action taken when ‘steering by learning’ occurred exemplify this. Sub-study 4 provided examples of modification to the WPDP of each enterprise’s management practice (described in more detail in the next section). The constant re-shaping of the framework was necessary throughout the duration of the WPDP, because each practice connected with the framework had its own internal logic (Wenger-Trayner & Wenger-Trayner, 2015).

There was a visible line of guidance from policy to the development of work-places, but it was not a linear one

The studies in the MI-WPDP suggest that for each new practice to be governed or guided by the WPDP framework, the framework was modified to suit the new practice (Wenger-Trayner & Wenger-Trayner, 2015). The modification was often made in conjunction with the practices that attempted to guide them. One example was the writing of the original framework (the programme plan), which was discussed between the policy makers at the overarching level and the operators of the programme. Another example are the adjustments of the framework made by the top management in collaboration with the Lean coach employed by the programme. Modifying the framework made changes in the guided practice easier (Wenger, 2010b). Following the trail of the guider’s and the guided’s changes to the framework, it is easy to envisage that the ‘line of guidance’ was not linear, and that realizing policies may be difficult because of the many internal logics of the practices that are involved. Thus, the ‘learning-oriented’ models for programme management called for in the project- and programme-management literature (Cavanagh, 2012; Jenner, 2010; Lycett *et al.*, 2004; Pellegrinelli *et al.*, 2007; Platje

³³ I do not refer to whole communities of practice here (neither do Wenger-Trayner and Wenger-Trayner (2015) when discussing how practices try to influence other practices. A community of practice may entail more than one practice.

& Seidel, 1993; Russ, 2011; Styhre, 2002; Thiry 2002) are indeed necessary. However, as will be shown, making a 'one-size-fits-all' learning-oriented programme management model is probably not possible. Nevertheless, the thesis presents some practical implications for programme managers.

Interaction and cooperation among stakeholders was essential to safeguard a dynamic framework

In the light of these findings, Alasoini's (2008, 2016) suggestion that WPDPs have a shared framework accepted by all stakeholders that simultaneously applies to multiple organizations appears to describe something of a utopia, or at best an ideal to strive towards. Altogether, the findings of this study suggest that the stakeholders of WPDPs do not have a shared framework accepted by all of them, which simultaneously applies to multiple organizations, because a WPDP framework needs to be dynamic and ever-changing as it passes through various practices (Wenger-Trayner & Wenger-Trayner, 2015).

Nevertheless, Alasoini (2008, 2016) makes a highly relevant suggestion when he suggests a third constituent of a WPDP, which is that organizations involved in the WPDP exchange information, interact and cooperate. The findings indicate that this is precisely what is necessary for the policies for workplace development to be realized³⁴. However, the findings presented here also suggest that there must be a line of guidance (Wenger, 2010b). Thus, as advocated in Sub-study 1, there was a need to balance steering by plan (i.e. governance through a WPDP framework) and steering by learning (i.e. possibilities to adjust or change the framework). Based on the findings, the balancing of the two seems to be vital to realize national and regional policies. This is in line with both Elg and colleagues (2015), who refer to Weick and Quinn (1999), and to Wenger (2010b), who advocates that such a combination may maximize learning capabilities of a complex social-learning system.

The findings suggest a constant interplay between what the policy makers could govern through the WPDP framework and what the practices being governed could influence by modifying the WPDP framework (Hodkinson & Bloomer, 2004; Wenger-Trayner & Wenger-Trayner, 2015). The interplay required learning, which was achieved when stakeholder representatives interacted and cooperated. The main case (MI-WPDP) illustrated that the interactions and cooperation took place when stakeholder representatives participated in numerous groups at the overarching and operative levels of the WPDP, such as the funders' group, the future group and the coaching group. The interactions and cooperation between

³⁴ An independent evaluation of the MI-WPDP first programme period showed an increased competitiveness compared to SMEs that had not participated in the programme. This conclusion was based on key indicators in the enterprises, which indicate that the policy was realized.

the operative level and the supported organizations took place in the support activities that the WPDPs provided in the form of courses and/or coaching. There was also interaction and cooperation between different levels or functions in the supported organizations, mainly exemplified by showing the lack of it (Sub-study 3). When the stakeholder organizations interacted and cooperated, their members crossed the socio-cultural boundaries between them (Akkerman & Bakker, 2011; Wenger, 1998).

Not all boundary-crossing processes led to development of practices

The findings emphasize the importance of boundary crossing across different levels of a WPDP, when realizing a policy that is beneficial for all stakeholders (Freeman *et al.*, 2010). The sub-studies give ample examples of boundary crossing promoting learning and development, both at and between the different levels of WPDPs (Akkerman & Bakker, 2011; Wenger, 1998, 2010b).

However, at times boundary crossing seemed to be a waste of time (Wenger, 2010b), sometimes because there was too little of it to make a difference to the practices involved. The social welfare department (Sub-study 3) provided examples of this. The courses attended by first-line managers gave too little in terms of boundary crossing, as did the support they received from the internal Lean coaches. Furthermore, with the exception of encounters during courses, very few meetings took place between the operative level of the programme and officials in the social welfare department, and – indeed – between different functions in the department (Sub-study 3). Furthermore, the social partners at the national level pulled out, leaving the operative level without the assistance or support needed to gain access to top-level management of the public organizations (Alasoini *et al.*, 2017). Overall, there were fewer opportunities for boundary crossing between different stakeholders in the PS-WPDP than in the MI-WPDP.

Altogether, this indicates that just because members of different communities of practice meet, there is no guarantee for learning and development of programmes or the supported organizations (Wenger, 1998, 2010b). For boundary crossing to generate a potential for learning, it must occur to a sufficient degree, and it must be in line with the needs of those who engage in it. The example of the social welfare department also indicates that because of the lack of boundary crossing, both between the operative level of the WPDP and between the department and different functions within the department, the ‘Lean investment’ failed.

Some persons were especially important for realizing policies

The findings presented here suggest that boundary crossing among persons who represent stakeholder organizations is necessary, because a dynamic WPDP framework is essential to realize the policies it is to operationalize. Some persons were

especially important, because they acted as brokers who maintained the balance between ‘steering by plan’ and ‘steering by learning’. Such persons achieved this by assisting in modifying the WPDP framework so that it would suit the internal logics of the practices involved. They were the persons who represented stakeholders and acted as brokers. Through their boundary crossing, the stakeholder organizations and the supported organizations were connected (Wenger, 1998, 2010a).

The most noticeable connections safeguarding a dynamic framework that remained stable enough to steer towards workplace development were the ones made by brokers who moved between different levels of the MI-WPDP. Brokers in the future group and steering board connected the overarching and operative levels of the MI-WPDP, while the Lean coaches from the operative level connected the programme with brokers who represented the supported organizations. Both cross-boundary connections (Wenger, 1998) seemed to be vital for the realization of the national policy. This agrees with findings by Brulin and Svensson (2012), who suggest that there needs to be learning between people with different functions of a development programme. It agrees also with the suggestion by Öhman Sandberg (2014) that a shared goal among stakeholders is important, and that it may be obtained only if there are actual needs for development work at each level.

Social partners played a vital role as connectors of policy and operative levels

In the MI-WPDP, persons who represented the social partners (the national trade union and employer association) connected the overarching and operative levels in a way that made it possible keep the policy dynamic. Their role was to make sense of the development of the programme, before presenting it to the policy makers at the overarching level (Akkerman & Bakker, 2016). Policy makers depended on the information passed to them from the operative level to be able to make timely decisions on the policies and take action (Sub-study 2). Thus, the roles of some brokers was a political one (Hong & O, 2009; Kimble *et al.*, 2010), in the sense that they had the interests of their own organization’s at heart when negotiating (Freeman, 2010) to create the cross-boundary connections necessary to find and allocate resources for the WPDP.

Thus, the argument presented by Alasoini and colleagues (2017) that publicly funded WPDPs need not only consent (approval) but also assistance from social partners in interventions traditionally associated with the work organization and management, is not contradicted. However, the explanation presented by the authors – that interfering with management practices is delicate business – is strengthened, by suggesting another reason that the consent and assistance of social partners are essential for WPDP success. This other reason is that they may act as brokers between the policy makers and those operationalizing the policy

Coaches played a vital role as connectors between the operative level and the supported organizations

The Lean coaches employed by the WPDP played a major role in connecting the operative level and the supported organizations. The findings of Sub-study 4 show that this is where the major adjustments to the WPDP framework took place, making the framework useful for the actual practices that the policies aimed at changing. The main connections were made with the top management and facilitators of employee-learning when designing the Lean implementation together, and when building the internal support structure for employee-driven innovation (Sub-study 4). The integration of competence-development activities into these two functions' work activities was important, because the internal structures were artefacts to stay and be further developed in the enterprises (Wenger, 2010a). This required knowledge from both coach and management, and thus the connections were valuable in regards to realizing the national policies for workplace development. The findings also show that the modus operandi of the brokers depended on their personal characteristics (Kilpatrick *et al.*, 2009). In the MI-WPDP, some brokers were skilled Lean coaches with vast experience, which helped them assume their roles as connectors of the operative level and the supported organizations.

Conversely, Sub-study 3 suggests that when the internal Lean coaches of the social welfare department rolled out their support, they were too inexperienced to assume the role of connectors between the operative level of the WPDP and the persons they coached, or between their own top management and the persons they coached. They were simply not educated and trained enough to cope with such a role. Overall, because of the aforementioned lack of boundary crossing between different practices in the social welfare department, there seems to have been far fewer connections between the different levels of the WPDP than the amount needed for a successful introduction of continuous improvement in the employees' everyday work. As a result, the 'Lean investment' developed into something that was not integrated into, but lay parallel to, the ordinary work of both the facilitator of employee learning and the employees. A contributing factor may have been that most modifications to the PS-WPDP framework would have been made unilaterally by the different practices, leaving them to interpret the WPDP framework on their own. This was exemplified by the sole responsibility for the 'Lean investment', which burdened the Lean support team manager.

The characteristics of persons acting as brokers may determine which type of boundary crossing is possible

As noted in Sub-study 2, the necessary or appropriate characteristics for brokers, in terms of experience and knowledge, brokering skills (Fortuin & Busch, 2010; Morse, 2010; Wenger, 2010b) and ability to use personal relationships to move things along differed, and depended on the work tasks and work practices in the WPDP. If persons that were supposed to act as brokers did not have the appropriate characteristics, the boundary crossing did not result in action, only in making

sense (Akkerman & Bakker, 2011, Sub-study 1). In the worst-case scenarios, it was a complete waste of time (Wenger, 2010b). This suggests that locating potential brokers with the appropriate characteristics in WPDPs is important, if not vital, to realize policies on workplace development through WPDPs (Akkerman & Bruining, 2016; Wenger, 2010a). However, whatever the characteristics of the brokers who crossed the socio-cultural boundaries of their respective practices were, the findings revealed that the other conditions also made a difference.

Conditions for learning that are important to realize policies for workplace development

The findings clearly reveal that various conditions shaped the learning environments in which the boundary crossing between various brokers took place (Fuller & Unwin, 2004). This suggests that the result of the brokers' boundary crossing, in terms of development of the programmes or supported organizations, depended on various conditions that either enabled or constrained learning among the stakeholders (Billett, 2001; Ellström, 2001; Evans *et al.*, 2006; Felstead *et al.*, 2009; Fuller & Unwin, 2004; Gustavsson, 2009).

Conditions that enabled or constrained learning at the overarching and operative levels

Sub-study 1 revealed a number of conditions that shaped the learning environment at the overarching and operative levels of WPDPs, and a comparison between the TE- and MI-WPDPs was made (Sub-study 1, Table 6:1, p. 87). The comparison revealed that there were more enabling conditions in the MI-WPDP. As stated in Sub-study 1, it was an interesting finding in itself that the same conditions previously identified as shaping learning environments in more permanent organizations were important also in the WPDPs. However, there seemed to be a greater degree of continuous participation in meetings for various stakeholders (Armstein, 1969; Eklund, 1997) in the MI-WPDP than in the TE-WPDP, and persons with authority or a mandate to make actual changes attended these meetings more often (Brulin & Svensson, 2012; Sub-study 1). However, tools, such as reports on progress and problems or other information that would support reflection (Ellström, 2010b) or making sense (Akkerman & Bakker, 2011) among the stakeholders, were also mentioned as an enabling condition in Sub-study 1. Altogether, such conditions (both expressed and unexpressed) shaped the learning environments during broker encounters and in turn, this affected the speed with which the WPDP, including the competence-development activities that made up the support, could be developed (Sub-study 1).

Furthermore, the various meetings seemed to generate more work activities in the different groups of the MI-WPDP than the meetings in the TE-WPDP generated. As shown in Sub-study 2, the brokers at the operative level of the MI-WPDP

had been assigned specific tasks that required actions in the form of transformation or coordination. According to Öhman Sandberg (2014) and Halvarsson Lundkvist (2013), the TE-WPDP was struggling mainly with what can be categorized as identification and reflection processes at the time (see also Akkerman & Bakker, 2011). It is generally agreed that work activities provide many opportunities for learning if the conditions for learning are favourable (Billett, 2004; Ellström, 2011; Evans *et al.*, 2006; Felstead *et al.*, 2000; Fuller & Unwin, 2004; Høyrup & Elkjaer, 2006). This suggests that realizing policies on workplace development requires meetings in which representatives of stakeholders perform work activities together, not just meetings to identify what each of them can do or reflect on the ongoing processes. This suggests, in turn, that a sufficient number of meetings must be held, especially if the stakeholders have not previously worked together.

Conditions that enabled or constrained learning in the supported organizations

Many studies have shown that various conditions shape the learning environments of organizations (Ellström, 2011). The learning environments of the SMEs were shaped by mainly enabling conditions that were divided into four categories (see the summary of Sub-study 4)³⁵. One of the most important conditions identified in Sub-study 4 was personal engagement from the employees and other key persons. The aforementioned building of an internal support structure for employee-driven innovation enabled learning in the enterprises, not least because the Lean coach employed by the MI-WPDP assisted in this process, as did the competence-development activities provided by the programme.

In contrast, as depicted in Sub-study 3, the conditions in the social welfare department were far from favourable. Most of the conditions, such as the lack of motivation of first-line managers and the absence of the top management, constrained learning, which contributed to shaping a restrictive learning environment for the employees (Fuller & Unwin, 2004, 2011). This resulted in few connections between the top-management practice, the coaching practice, and the work practices led by the first-line managers.

Facilitators of employee learning were the last link in the line of guidance, and an important condition

In line with other studies, a particularly important condition found in the supported organizations were the facilitators of employee learning (Döös *et al.*, 2015; Eraut, 2007; Gustavsson, 2009; Lancaster & Di Milia, 2015). The reason is that such persons were the last connection in the line of guidance between the policy makers and the employees who are to change or develop their work practices. As

³⁵ For differences between the studied enterprises, see Sub-study 4.

such, they too may be seen as brokers if they take on such a role. The main approach to promote employee learning has long been to employ managers and develop them (Eraut *et al.*, 1999). In the enterprises supported by the MI-WPDP, the facilitators of employee learning worked in direct connection with an experienced Lean coach employed by the WPDP, which seemed to provide them with the skills they needed. Furthermore, their roles as facilitators were sanctioned by the top management, who had participated in designing the internal support infrastructure, with support from the WPDP Lean coach.

In contrast, in the PS-WPDP, the only connection the facilitators had with the WPDP framework was a three-day course. They were then to be supported by internal Lean coaches who had received only slightly more education, and who were virtually inexperienced as Lean coaches. Furthermore, most first-line managers were subject to other pressing conditions, including a lack of general resources (Ellström, 2006; Gustavsson, 2009), which meant that they had to be more performance-oriented and less oriented towards facilitating employee learning to develop the workplace (Wallo *et al.*, 2013). It is, thus, not surprising that the Lean investment failed in most parts. Furthermore, the competence-development activities for first-line managers became disconnected from the goals of the department (Fuller & Unwin, 2004) as a consequence of the change of focus, prompted by new politicians. As a result, the overall ‘Lean investment’ failed.

The decisions taken by politicians mentioned above provide an example of external conditions affecting internal ones (Elkjaer *et al.*, 2007; Evans, 2015; Fuller *et al.*, 2003, Evans, 2015; Rule *et al.*, 2016). Other external conditions were the general financial constraints within the municipality, which in turn, gave the first-line managers too little resources to both carry out and develop their work practice. The external PS-WPDP did not have the power to mitigate the unfavourable external conditions that affected the internal conditions in such a devastating way.

The sheer size of public-service organizations, which can be seen as complex social learning systems in themselves (Wenger, 2010b), and the fact that they are governed by local politicians may make it particularly difficult to realize any national policies for workplace development. Perhaps this makes the consent and support from social partners particularly important in public organizations. Nevertheless, the findings revealed that WPDPs can make a difference in both public and private organizations, but only if they are given ample resources, both monetary and in the form of competent persons.

WPDPs may contribute to shaping an expansive learning environment in organizations

The findings identified many favourable conditions that a WPDP may provide to help shape an expansive learning environment in the organizations it supported.

However, to do so the WPDPs need resources and competent persons. A comparison between the MI- and PS-WPDPs provides some clues to how WPDPs may contribute to workplace development.

Table 5 provides an overview of the differences in support that the enterprises supported by the MI-WPDP and the social welfare department supported by the PS-WPDP received.

Table 5. Support received from the PS- and MI-WPDPs.

Type of support	Social welfare department (PS-WPDP)	SMEs (MI-WPDP)
Designing the Lean implementation	No	Yes
Courses for employees (the persons to carry out continuous improvement)	No (by choice of the social department)	Yes
Courses for facilitators of employee learning	Unsubsidised 3-day courses for unit managers	Subsidised university course 7.5 ECT credits
Integration of course content in the employee-learning facilitators' everyday work	Not noticeable	Yes
Additional courses for internal Lean coaches or coordinators	Additional unsubsidised courses (in total 15 days)	Not included, but provided at extra cost
Help to organize an internal support structure for the facilitation of employee learning to stay after the WPDP	No	Yes

Table 5 reveals that the support from the MI-WPDP was more substantial than that from the PS-WPDP. The latter relied more on traditional courses. Thus, it was more difficult for the operative level of the PS-WPDP to govern or guide the supported organization than it was for the MI-WPDP, because fewer opportunities for boundary crossing arose.

A closer look at the support provided by the MI-WPDP reveals that it consisted of several parts, which each contributed to shaping an enabling learning environment with many connections between different practices in the enterprises. The first practice that the coaches targeted was the top management. The coaches integrated the more formal Lean courses into the top-management practice when the managers designed the Lean implementation. The coaches tried to ensure that the top management were engaged and took ownership of the Lean implementation (Brulin & Svensson, 2012; Öhman Sandberg, 2014), which was a way to ensure the shaping of an enabling learning environment. Thus, the findings expand prior research (Billett, 2012; Ellström, 2010a; Evans, 2012; Fogelberg Eriksson, 2014; Price, 2012) by pointing out that competence-development activities must be inte-

grated into ‘everyday work’ (work practices) at different levels in supported organizations, not just for the persons who participate in the courses. These other practices at various levels in an organization shape the learning environments for its employees. This was also important because the internal facilitators of employee learning needed support from other functions to be able to take on such roles.

The findings show that a WPDP may contribute to workplace development in the organizations it supports, or it may drain resources from them without really contributing to workplace development. Many conditions interplayed to determine which would be the case. However, this study suggests that it is essential for actors in WPDPs to work towards shaping favourable conditions for learning in both the overarching and the operative levels of the programme and in the organizations it supports. Then, the much-needed balance between steering by learning and steering by plan may be achieved, which would seem necessary incrementally to reshape a WPDP framework on its ‘journey’ from the policy makers to the workplaces. The study has shown that the realization of policies on workplace development is anything but linear (Cavanagh, 2012; Jenner, 2010; Lycett *et al.*, 2004; Pellegrinelli *et al.*, 2007; Platje & Seidel, 1993; Russ, 2011; Styhre, 2002; Thiry, 2002). It confirms the point that Alasoini (2016:109) makes, when he suggests that WPDPs should be regarded as “open, dynamic and learning production and development systems”. The thesis has provided some insight into why this is the case. Nevertheless, it has both strengths and weaknesses, which are discussed below before drawing some conclusions.

Critical reflections on the study

As mentioned in Chapter 5 (Methods), the circumstances during the initial data collection have both been advantageous and encumbering while conducting the research presented in the thesis. The main strength of the study is that the multiple case study design enabled a unique, comprehensive and holistic depiction of WPDPs as large and complex learning systems. I was able to show that learning among various stakeholders at all levels played a vital role in realizing policies of workplace learning, even though I was not able to study all levels or parts in all of the studied WPDPs in detail. However, keeping in mind that social theorising is not about generating statements that are true or false, but on organizing a perspective of the world (Wenger, 2013), the data was sufficient. The material from which I could select data was huge. The interactive research projects gave opportunities to collect data for a long period, especially in the MI-WPDP. This provided me with plenty of material to choose from. Nevertheless, the downside of having much material is that the analyses were time-consuming and had to be carried out in several steps in order to be able to identify the conditions that shaped the different learning environments throughout the WPDPs. On the other hand, the abundance

of data assisted me in the selection of important processes to focus on in the overarching and operative levels of the WPDPs. In the supported organizations, this was not an issue. The two studies that resulted in Sub-studies 3 and 4 had one set of data collection, with the exception of the two follow-up interviews in the social welfare department (see Data collection).

Furthermore, getting close to the study object is paramount for the quality of a case study (Yin, 2018). Few, if any, studies in the workplace-learning field have depicted the delicate balancing of what I termed ‘steering by learning’ and ‘steering by plan’ throughout a social learning system. This was only possible because I was given access behind the scenes of the overarching and operative levels of the WPDPs (Eikeland, 2006). I was there because I was useful for the practitioners as a data collector, writer of reports, and facilitator of discussions among stakeholders. In this sense, I was also a broker who affected to a certain extent the decisions of the policy makers and operators. It was my lengthy, close and active presence that made the work presented here possible.

A circumstance that at first glance may seem a weakness are the differences in both complexity and organization of the WPDPs that were studied. However, that the WPDPs were of different magnitudes and organized differently is not surprising. As mentioned in Chapter 2, WPDPs come in various shapes and sizes. Furthermore, the main point of the comparisons was not to evaluate the WPDPs as such or compare the organization of them. It was to investigate learning in WPDPs and in the supported organizations when realizing policies on workplace development.

Nevertheless, a multiple case study increases external validity (Yin, 2018), that is, how valid the findings are for other WPDPs. Furthermore, in qualitative studies, clarity in the arguments is essential for quality (Bryman, 2004). I have tried to mitigate the complexity of the argumentation by systematically making the comparison and contrasting in separate sections, enabling the reader to follow the argumentation. Even though the complexity of the study objects makes both the analyses and the argumentation challenging, it would have been a waste to refrain from comparing and contrasting the WPDPs ‘as they presented themselves’, because the material is unique in that it includes three large WPDPs and some of the organizations supported by them.

8. CONCLUSIONS AND IMPLICATIONS

The research field of workplace learning has contributed to opening up a new way of understanding the realization of national and regional policies on workplace development operationalized by WPDPs. Concepts and theoretical standpoints generally agreed upon within the field, which prior to this study have mainly been used to depict the development of single workplaces or more permanent organizations, have here been combined with Wenger's theory of social learning. WPDPs were seen as large and complex social learning systems, in which the stakeholder organizations were connected through artefacts and people acting as brokers. The combination contributed to opening up the 'black box' of learning, as a national or regional policy makes its way to the supported organizations and finally to the workplaces in which employees may change work practices to increase the organization's operational performance.

The first conclusion to be drawn is that it is probably not possible to make a 'one-size-fits-all' learning-oriented WPDP management model, because the various practices that need to be governed or steered by programme managers have different internal logics. Nevertheless, learning among stakeholders is imperative. The findings illustrate that policies of workplace development that are to be operationalized by multiple stakeholders require plans and other artefacts that connect the stakeholders. However, steering by plan must be combined with steering by learning, because the connecting artefacts are developed over time when realizing a WPDP. This became evident when viewing WPDPs as large and complex social learning systems in which the stakeholder organizations take joint actions to realize a policy. Because the original policy was developed further by those who operationalize the programme, the original WPDP framework (i.e. the policy) was re-shaped, and slightly modified for each practice it touched. In this process, persons acting as brokers between the different practices that the WPDP touched were found to be important – especially those who connected the different levels of the WPDP and the supported organizations.

The next conclusion is that connections between stakeholders can only be developed if persons acting as brokers cross the socio-cultural boundaries between the stakeholder organizations. It is not sufficient that they are skilled brokers: they must also have the characteristics necessary for the level(s) at which they act as broker. They also need to have the mandate or authority and freedom to develop the framework as it moves along an envisioned line of command from policy to the employees' development of work practices in supported organizations. This requires not only a mandate from their own organization but also one from all of

the stakeholders involved at a specific stage of policy realization. If there was no mandate, learning occurred mainly in processes of identification and reflection that did not lead to actions that maintained momentum in the realization of the policy. When momentum was maintained, a potential for learning and development of both the programme and the supported organization arose, provided that sufficient boundary-crossing took place. Nonetheless, identification and reflection processes were also necessary. Furthermore, the most important brokers identified were social partners who connected the operative level with the overarching level, coaches who connected the operative level with the supported organization, and facilitators of employee learning (first-line managers or others) who connected the WPDP and the internal top management with the employees.

The final conclusion drawn from the findings is that conditions that shape expansive learning environments are key in the entire WPDP, from the overarching level to the workplaces in supported organization, in which employees are to develop their work practices. Consequently, WPDPs that find ways to shape the learning environments of both the overarching and operative levels of the WPDP and the supported organization into expansive ones may have a better chance of realizing policies on workplace developments.

In summary, the three conclusions describe the dynamics of realizing policies on workplace development, which cannot be achieved using a one-size-fits-all learning-oriented model for WPDP management. On the contrary, it is dependent on the creation of a sufficient amount of boundary-crossing opportunities, the skills and characteristics of the persons who act as brokers, and the conditions that shape the environment in which they encounter each other.

Practical implications

The findings presented here imply that funders and other authorities that make policies on workplace development through WPDPs should, when they examine programme plans of potential WPDPs, scrutinize how learning among stakeholders that enter into partnership to operate WPDPs is to be facilitated. Linear plans that are not complemented with careful explanations of how steering by learning is to be facilitated may constitute warning signs. Operators that do not show an understanding for the dynamics and complexity involved in realizing workplace development by WPDPs, should not be granted the means to operate them. Furthermore, because conditions that enable learning at the operative level is imperative, funders should ask the operators how they will work to provide such conditions. Consequently, it is essential to provide operators with sufficient resources to allow for steering by learning in an expansive learning environment. In addition, it is a good sign if the organization of the proposed WPDP suggests that there will be various groups with distinct purposes, i.e. work groups made up of representatives of different stakeholders, because learning is promoted in such groups, where boundary crossing is necessary. Nevertheless, it is also a good idea for the policy

makers to identify persons who can act as brokers between themselves and those who operate the WPDP, so that steering by learning is made possible for the duration of the programme.

An organization looking for support to change or develop work practices by engaging employees should search for a WPDP that caters to all key functions of the organization not just to single work places or single practices. Competence-development activities for top-level management and for facilitators of employee learning are particularly important. However, it is not enough to send persons with these functions on courses: the content needs to be integrated into their practice (their work). Thus, if the supporting WPDP does not provide coaching, any internal coaches who are to support the top management, the facilitators of employee learning, or other functions must be well-educated and preferably experienced. Furthermore, the top management of the supported organizations must sanction and support the roles of the coaches. This is not to say that participating in an occasional or ad hoc course or network with others is worthless, only that to expect major changes to work practices by means of such courses is probably not realistic unless the overall learning environment in the organizations is a fully developed expansive one. From the perspective of the WPDP-supported organizations, there is no guarantee for successful change efforts from joining a WPDP. Organizations looking for external support to develop the innovative capabilities of employees must be careful in choosing their support. A WPDP may consume the resources of an organization without providing any benefit, if it does not provide the appropriate support. On the other hand, a WPDP may be a great source for learning, especially if it includes support in designing the change effort and help in developing an internal infrastructure that will continue supporting workplace development after the programme ends. The structure must fit into already existing structures, and the WPDP support must, therefore, be flexible.

Finally, a note on EU policies on ‘workplace innovation’ that are realized through WPDPs. As aforementioned, few recent studies on WPDPs that take a stance in a structured conceptual framework have been conducted. This may be because programmes that are to promote workplace innovation are scattered into different platforms and thus isolated from each other. Another reason may be that evaluations of EU-funded WPDPs have been mainly concerned with capturing results and effects, which, as mentioned above, is difficult. Learning evaluations have contributed to much empirical knowledge about what makes WPDPs work, perhaps mainly for the practitioners and the evaluators. However, the workplace-learning field can contribute with concepts that help to identify the learning conditions that are necessary to realize policies on ‘workplace innovation’. More use of such a conceptual framework would also contribute to more knowledge about the knowledge triangle, and what really drives productivity growth in an economy. For me, there is no doubt that learning among stakeholders of a WPDP can contribute to an economy’s productivity growth.

Future research

Research is needed so that funders and other policy makers may better understand how to assess and make a priori evaluations of presumptive WPDPs that take into consideration how steering by learning is to be organized. The work presented here provides some guidance about what to look for, but not how to assess applications in terms of steering by learning. This would be a complement to research on programme logic or theory-based evaluations. In addition, more studies on learning environments at the operative and overarching levels in which the connections between stakeholders are created are certainly needed. Such studies may include interviews and observation of meetings between stakeholders to identify other enabling conditions for learning, and to further investigate the roles and characteristics of people who act as brokers. This would make a much-needed complement to the content analysis of policy documents, which is the mainstream method to analyse what lies behind a certain policy. Furthermore, studies on how evaluations may contribute to learning among stakeholders at the overarching and operative levels of WPDPs are valuable. In addition, it would be interesting to investigate in depth the roles of social partners and other mediators in making policies and in realizing them.

Future research that focuses on brokers and other connections between the operative level of a WPDP and the organization it supports is also necessary. Among remaining research questions are: Under what conditions is it possible to rely on brokers who are internal to the supported organization? Under what conditions is it necessary to employ coaches or other types of broker in the WPDP to make the connections between the operative level and the supported organization? However, more knowledge about facilitators of employee learning is also needed. How may they become connections between top management and employees, and under what conditions?

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