Intervening with Care
Creating New Infrastructures for Learning and Increasing Quality of Elderly Care

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Lessons learned from an analytical chemist friend of mine.

It’s all about energy!

‘A catalyst (is a substance that) accelerates a reaction without being consumed by the reaction’.
Now, think about workplaces! We really need catalysts in our workplaces! We need work environments, ways to organize the work, and people who accelerate reactions, without being consumed.

The way catalysts accelerate reactions is ‘providing an alternative route for the reaction, with a lower activation energy’.
Suppose that you have two valleys and that the only way for people to get from one valley to the other is over a mountain. Now suppose that a tunnel is cut through the mountain. Many more people will manage to get from one valley to the other by this alternative route.
Well.. I really think we need to act like catalysts in our workplaces, providing each other with tunnels!
Abstract

Substantial changes in public elderly care in Sweden have been resulting in a standing need of updating staff competence to match the new demands and maintain quality. Since the ability to learn is of importance when confronting changing conditions, organizations in general, as well as the authorities responsible for elderly care, invest large amounts of resources in learning in the workplace. However, the success of such investments depends on the interactions among numerous individual and organizational factors.

This thesis has aimed at increasing our understanding of the process and consequences of the learning intervention Steps for Skills in the context of elderly care, by addressing three specific research aims. The first aim focused on the psychosocial environment as a precondition for learning. The perceived learning climate was addressed in Study 1, and correlations were found between leaders’ and employees’ perceived learning climate and, to some extent, between employees’ perceived learning climate and work group skills.

The second aim focused on the consequences of the intervention for employees in terms of their psychosocial environment and the building of new infrastructures for learning. Changes in perceived learning climate and their relation to the transfer of knowledge were addressed in Study 2. It was found that the intervention had influenced the perceived learning climate differently for different groups. In addition, the use of the new knowledge depended on the learning climate. The consequences for employees were also addressed in Study 3 by examining the relation between process and outcome. Results showed that although the same method was used, the content of the improvement work differed, influencing employees’ perceptions of the learning climate, resource adequacy and workload differently.

The third research aim focused on the consequences of the intervention for elderly by addressing elderly care quality, conceived as autonomy-support. The results from Study 4 identified too many constraining interactions for elderly care to be described as an autonomy-supportive. It is concluded that general quality improvement work does not guarantee increased autonomy-support. All in all, these results show that context and process matter, and also provide information concerning quality improvement through learning interventions.

Keywords: learning intervention, learning climate, skills, knowledge, resource adequacy, workload, autonomy-support, elderly care, Sweden
**Acknowledgements**

*This session of a PhD thesis, enabling the PhD candidate to thank all those who have helped in carrying out the research, is known to be ‘the most widely read pages of the entire publication’.*

**Introduction**

It is common in Sweden today to fund postgraduate studies through appointment to a doctoral studentship position. PhD-candidates then become staff members, often providing some teaching duties. More complex arrangements may also be done (see Department of psychology and UFFE, 2006). Yet, the overall aim of being a PhD-candidate is earning a doctorate degree, which encompasses broader and profound activities of scientific research. In order to accomplish this goal, three specific aims are addressed: (1) learning the crafts of being a researcher, (2) finishing the thesis - in time, and (3) surviving the academic world. Previous research has shown that before starting this endeavor some prerequisites must be fulfilled. For instance, passing the hard interrogation process (Kerstin Armelius, 2006) and be chosen before other candidates by the main supervisor (Kristina Westerberg, 2006).

**Methods**

*Participants:* Supervisors (*n* = 2), fellow PhD-candidates (*n* ≠ T1-T6), other academic staff, family and friends that contributed with help and support to the achievement of this PhD. *Procedure:* The Brazilian version of the *Colleague Acceptance Test (CAT)* has been administered to co-workers at the department of psychology (at daily basis), at UFFE (on Tuesdays), at the Graduate School in Population Dynamics and Public Policy (when needed), and also to colleagues sharing the walk-therapy session (during lunch time).

**Results**

A significant difference (*p*.<.01) was found between learning the crafts of being a researcher, finishing the thesis in time and surviving the academic world. Especially important in securing finishing the thesis in time, sometimes viewed as the most important aspect, were getting feedback on the studies and revision on earlier drafts of the thesis (*r*=.70; *p*<.01). Learning the crafts of being a researcher was shown to be a complex aim. Besides being achieved through performing the actual research work, learning the crafts of being a researcher was significant correlated with aspects such as networking (*r*=.80; *p*<.001) and interacting with fellow PhD-candidates and supervisors (*r*=.80; *p*<.001). Social support from fellows PhD-candidates was shown be to the most central aspect of surviving the academic world (*r*=.90; *p*<.001). In addition, a significant difference (*p*<.05)
between the PhD-candidate at work and at leisure time was found. Leisure time was significantly correlated with spending time with the Brazilian clan (r=.90; p<.001) and old friends (r=.70; p<.01), attending zumba, lindy hop and running classes (r=.90; p<.001), and mingling at parties (r=.70; p<.01). A significant interaction effect between running classes and work was found. Yet, work productivity was not influenced by the potential confounders.

**Discussion and Conclusions**

The overall aim of being a PhD-candidate was earning a doctorate degree. During the years devoted to achieve this goal, several people played a decisive role in making it an exciting time. The first roomie and dear friend Susanne Tafvelin (2006-13) with whom the PhD-candidate shared supervisor, UFFE-affiliation and hotel rooms (and beds!) during conferences, should be especially thanked. Susanne's direct effect on the PhD-candidate's well-being and indirect effect on the PhD-candidate's productivity (see common writing trips to Skellefteå and Stockholm, 2012) were confirmed in a longitudinal study. This relationship is sometimes defined as 'shared joy is a double joy; shared sorrow is half a sorrow' (Hauer, 2013:1). Gratitude should also be expressed towards the mentor and friend Camilla Hakelind (2006-13) for her encouragement and significantly positive participation in diverse leisure time activities. In accordance with evidence-based practices, it is concluded that the strong positive correlation between the PhD-candidate, Susanne and Camilla goes beyond shared year and month of birth! Ingrid Schelé (2006-13) should also be acknowledged. Not only did her tea parties bring warmth to cold and dark fall nights, but also her go-for-it attitude strengthened the effect of the walk-therapy session with Inga.

To sum up, the results of this thesis along with previous research confirm the important role of multilevel peer support in surviving the academic world. In this sense, the other fellow PhD-candidates should also be thanked for great times at PhD-parties and for the effortful attempts to take care of each other. For instance, Daniel Sörman’s (2011) special contribution to the great time in Barcelona is recognized! Moreover, besides stimulating networking in Barcelona, there is a positive effect of the Graduate School (2008-13) on the amount of conferences the PhD-candidate could attend.

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recognized. Finally, PhD-candidates need data, thus the informants in the interview study and the respondents to the survey are also to be thanked.

Taken together, these acknowledgments clearly indicate that the PhD-candidate needs some days of vacation. Thus, a suggestion for further research is an in-depth empirical exploration of a warm place.

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Thank you for blessing my life with your presence!

Umeå, March 2013
Esther
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Sammanfattning (in Swedish)

Framtidens förväntade ökning av äldre och förändringar i omsorgsbehoven, och därmed förändrade arbetsuppgifter, ökar rekryteringsbehoven av utbildad personal i äldreomsorgen. Detta tillsammans med den idag relativa avsaknaden av formell utbildning har lett till en ökad uppmärksamhet och större fokus på kompetensutveckling från politiskt håll. Kompetensstegen, ett kompetensutvecklingsprogram inom Umeå kommun, som syftade till att stödja kommunernas "långsiktiga kvalitets- och kompetensutvecklingsarbete inom vård och omsorg om äldre", startade 2005 och pågick i tre år.


Tillsammans, visar avhandlingens resultat vikten av sammanhanget och processen samt ger information angående ökad äldreomsorgs kvalitet genom interventioner.
List of Studies

This thesis is based on the following studies:


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Introduction

Continuous quality improvement and change through learning at the workplace have become increasingly important in organizations (Cho and Egan, 2009). Whatever the goal of the organization is, people need to draw on the right knowledge, skills, and competences in order to reach such goals. Learning in the workplace is thus of vital importance. The success of learning at the workplace, however, depends on numerous individual and organizational factors, as well as on an actual match between learning environment, participants, and expected outcomes (Pawson and Tilley, 1997). Organizations today invest a large amount of resources in designing and implementing learning interventions. However, there is a lack of evidence of the effectiveness of organizational interventions in general, which is said to be largely due to the fact that contextual and process factors are omitted in evaluation studies (Biron, Gatrell and Cooper, 2010; Egan, Bambr, Petticrew and Whitehead, 2009; Randall, Griffiths and Cox, 2005).

In public elderly care in Sweden, there has been an increasing need for competence development of the nursing staff, and a prominent lack of formal education has been attracting political attention (SALAR, 2006). Elderly care is one of the major employers in Sweden and constitutes an important part of the Swedish welfare policy, so continuous learning to improve elderly care quality is now regularly financially stimulated by the authorities. Quality of elderly care, however, goes beyond trying to secure nursing staff competence (Hasson and Ernetz, 2006, Parks, Haines, Foreman, McKinstry and Maxwell, 2005). Further outcomes are needed in order to understand better how interventions promote continuous learning as such and as a means to improve quality. Also, research on the impact of learning interventions on the actual quality of elderly care is unusual, which calls for further investigations in this area. The present thesis redeems this to a certain degree because it is a case study of the process and consequences of the learning intervention Steps for Skills on the psychosocial environment of the staff and on the elderly’s autonomy (e.g., quality of elderly care).

Changing Organizational Conditions in Public Elderly Care

Public elderly care in Sweden, like public sector organizations in most Western countries, has experienced substantial changes during the past decades, which has resulted in a standing need to update and increase staff competence to match the new demands. In the 1990s, many municipalities in Sweden introduced a new form of governance influenced by New Public Management, known as a purchaser-provider model of governance (Blom, 1998), in which competitiveness, efficiency, and user self-determination are
central principles (Szebehely, 2011). In general, notions of increased quality of service together with notions of efficiency, however, have been putting opposing requirements on leaders and workers in many public sector organizations (Rainbird, Munro and Holly, 2004). From a workplace learning perspective, the issue is how managers and employees of such organizations are most likely to learn to meet these changes (Gustavsson, 2009). In addition to the introduction of the new market-oriented form of governance, Swedish municipalities assumed overall responsibility for care of the elderly that previously was part of the public health system (National Board of Health and Welfare, the, 1996). Elderly care was then organized around the principle of home help service, which enables the elderly to remain in their own homes as long as possible with special housing provided when the elderly person is in need of particular support. These changes resulted in nursing staff in elderly care being the largest occupational group in the Swedish public sector in general and for women in Sweden specifically (around 180,000 of which 93 percent are women) (Ahnlund, 2008).

During recent years, however, the number of elderly care staff has gradually been reduced. Besides being affected by restructurings and staff reduction, the time-per-user ratio of care work also has diminished (Andersson 2007). Moreover, elderly care is constantly exposed to new challenges and demands because of an increasing population of elderly (SOU, 2007:88), which for example has resulted in elderly care recipients with dementia receiving help in their own homes (Szebehely 2000; Thorslund 2002). The problem at hand then has become to employ personnel with adequate skills as well to update the skills of the existing staff to meet the requirements for carrying out care work. Most municipalities, which require nursing stuff to have formal qualifications in order to be employed on a permanent basis (Törnquist 2004), find it difficult to recruit and keep qualified staff. Because the service needs to be fully staffed, employing staff without formal qualifications has thus become a reality (National Board of Health and Welfare 2001) and in 2006, it was estimated that about 40 percent of the staff lacked formal nursing training (SALAR, 2006). This mismatch between competence and work tasks leads to more demands on care workers, as well as to less control of the work situation (Theorell, 2002).

In spite of unsatisfactory psychosocial work conditions (Gustafsson and Szebehely, 2005), the Social Services Act in Sweden prescribes that elderly care shall be of good quality, based on respect for the elderly’s autonomy and integrity (SOU 2008:51). Yet for many years there was little investment in actions to meet the skill requirements through training or other competence development, and the underlying assumption appeared to be that the requirements should be met through the process of ‘learning through working’. Achieving elderly care of high quality that meets the needs of the
elderly under these conditions thus is a great challenge. To date, the learning environment in Swedish elderly care rests on experience-based learning in everyday work (Törnquist, 2004); although the underlying assumption now is that new skill and quality requirements are to be met through creating new infrastructures for learning in elderly care. The challenges faced by public elderly care accentuate the need for research on the consequences of learning interventions.

Creating Infrastructures for Learning in Elderly Care

Since the ability to learn, by individuals, groups and whole organizations, is known to be of major importance when confronting changing conditions, it is crucial for organizations to have a well-reasoned learning strategy. Organizations’ learning strategy commonly consists of both regular developmental efforts and, when needed, developmental efforts of a more temporary character, for example, learning interventions. The purpose of learning interventions is to increase specific competences for individuals and groups and, in the best case, also to influence learning in a more long-term manner. Learning interventions, then, can differ regarding the pedagogical notions upon which they are based and also in the type of learning they are intended to promote. Today, however, it is thought that people learn more efficiently when working with real-time problems in their own work settings (e.g., action learning, see Cho and Egan, 2010). Moreover, previous research highlights the importance of a readiness to alternate between learning particular tasks or the current way of doing things and developing new ways of coping with complex work tasks through questioning prevailing practices (e.g., see Szébényi, 1995; Barley and Kunda, 2001; Brown and Duguid, 1991).

During the past decade, focusing on learning and competence development of nursing staff has been the strategy frequently chosen in order to deal with changed conditions and requirements in elderly care. The aim of such a strategy is to make a reality of the vision of elderly meeting skilled staff working in a well-functioning organization. Examples of such initiatives are the Steps for Skills initiative (Kompetensstegen), at the national level, and the local Steps for Skills intervention (Kompetensstegen i Umeå, KUM). Steps for Skills was a government-appointed multi-year national initiative that started in 2005 aiming to support municipalities’ long-term quality and skills development in order to improve the quality of elderly care. The general idea was that competence development should be linked to the workplace and in collaboration with educational institutions.

Several organizations around the country were granted funds to intensify their efforts in making existing skills visible, in developing additional skills of the staff working closely with the elderly (often the ones with less formal
education), and creating sustainable systems for continuous learning. The case in this study, the Social Services in Umeå municipality, committed themselves to build new infrastructures for learning and development by means of courses directed to nursing staff, support to work groups to improve their quality of work, and leader development courses to first-line managers. About 72 percent of 1,830 employees participated in some way in activities of the local project during 2006–2009 (Westerberg, 2010).

In order to understand the influence of interventions (learning, educational, developmental—or other types), these interventions should be considered as learning situations or temporary learning organizations, in which progress is triggered by different factors (Øvretveit et al., 2002). One such factor is the purposeful action of individuals (Pawson and Tilley, 1997) or learner readiness. Individuals’ actions are stimulated, or not, however, by the existent working conditions for learning. Thus, a second factor that may explicate the progress of learning interventions is sufficient knowledge about those conditions. It has been well established that the conditions and climate of the work environment—that is, the psychosocial environment for learning—can help or hinder learning (Billett, 2001; Ellström, 1997; 2001; Fuller and Unwin, 2004). A third factor that also should receive attention is the goodness of fit of interventions—that is, whether interventions have been tailored to the specific type of learning that is expected. Policies related to workplace learning interventions often reflect acceptance of individualistic learning as a product assumption, failing to connect with the very activities that they are supposed to influence and support (Malloch, Cairns, Evans, and O’Connor, B., 2011).

Specifically, in order to assess the success of learning interventions such as Steps for Skills, the psychological, social, or organizational aspects of the job that, among other things, stimulate personal growth, learning, and development (Bakker, Demerouti, Taris, Schaufeli and Schreurs, 2003)—that is, the learning climate—require investigation. The learning climate may differ not only between organizations, but also between workplaces and groups within the same organization, because it is influenced by interactions between the parts. Moreover, although increasing quality has been the explicit target of most learning interventions, efforts to connect the quality of elderly care to such interventional efforts are unusual, calling for further investigations in this area. Finally, it might be time to replace the concept of interventions producing outcomes with the concept of interventions stimulating changes, and then to investigate whether changes were triggered into action (Pawson and Tilley, 1997).
The Present Thesis

The overall aim of this thesis is to improve our understanding of the process and consequences of a learning intervention in the context of elderly care, through investigating whether the intervention works, for whom, and under which condition. To be more specific, a first aim of the thesis was to investigate the psychosocial environment as an important precondition for learning in the workplace. A second aim focuses on the consequences of the intervention for employees in terms of the psychosocial environment and the building of new infrastructures for learning. The third and final aim focuses on the influence of the intervention on the elderly by addressing elderly care quality, conceived as autonomy-support. A diagram of the conceptual relations among the overall aim and the specific aims is presented in Figure 1.

Because little is known about the preconditions for learning in organizations as well as about their relation to work group skills, Study 1 investigated the first aim by focusing on the learning climate and on work group skills prior to the learning intervention—that is, the relation between learning climate at different organizational levels (managers and staff) was studied, and the managers’ assessment of the work groups’ skills was contrasted with their work groups’ learning climate.

Looking more closely at the potential changes due to the intervention and the second aim, Study 2 examines the changes in learning climate and their relation to the transfer of knowledge. Although the goodness of fit of an intervention is often assumed, the perceived learning climate may vary and

Figure 1. Conceptual model of this thesis
be influenced differently by the intervention in diverse contexts. An investigation was included in this study that contrasted the changes in learning climate in home help and residential homes, and also examined whether the success of the intervention in terms of people applying the new knowledge depended on the learning climate.

Again, addressing the second aim, Study 3 looked further into the potential differences of how groups are influenced by interventions. It investigated whether the content of the improvement work differed although the same improvement method was used. Learning climate, resource adequacy, and workload were then investigated in relation to the different contents.

The third aim was investigated in Study 4 by addressing the influence of the intervention on elderly care quality, conceived as autonomy-support. Because the views of the contact persons and elderly views may differ, possibly implying that the needs of the elderly are not met, the conceptions of autonomy-support from both perspectives were examined. Increased quality of elderly care as a result of the learning intervention was then investigated.
Intervening in Order to Change

Organizational changes have taken place as long as people have organized themselves (Burke, 2002). Organizations tend to change continuously, and those changes usually cannot be controlled arbitrarily because organizations rarely do exactly what they are told to do (March, 1981). During the years, many models have been developed to describe organizational change and different approaches (with their own dichotomies) targeting change have emerged. Change through interventions (planned change) versus ongoing (spontaneous change) (Bennis, Benne, and Chin, 1969) and first-order (incremental) versus second-order (radical) change (Watzlawick, Weakland and Fisch, 1974) are some examples. In this thesis, the overall aim has been to improve our understanding of the process consequences of a planned change through a learning intervention (see Figure 1).

Learning, development and change are strongly related in organizations as well as for individuals. Sometimes it has been argued that learning is change (Bateson, 1972), but change rather demands learning. Therefore, when striving for continuous development and change, the relation between learning and change must be made visible, utilized and promoted. Regarding the relationship between learning and development, Engeström (1987) states that learning is as much a necessary precondition of development as development is a necessary ingredient of learning. Continuous quality development through learning strategies therefore is important in organizations (see Argyris and Schön, 1978; Cho and Egan, 2009), and organizations regularly use different learning systems in order to enable changes in the work context and in the way the work is organized (Poell, 1998).

Those types of planned changes through intervention are often initiated by some actors in the organization, perhaps in cooperation with internal or external human resource development (consultants or researchers), and driven as a project with limited time and other resources. Those interventions can aim to change or develop specific aspects such as the management system, staff skills and competences, cooperation, effectiveness, or quality. The interventions can also have a more holistic approach and aim to build new infrastructures for learning in the organization, which may also involve work on mental models (Senge, 1990), broad human resource development policies (Pedler, Burgoyne and Boydell, 1991), promoting an organizational culture that does not punish experimentation (Pedler et al., 1991; Watkins and Marsick, 1993), and valuing teamwork (Senge, 1990). Thus the desired changes can be changes within certain limits such as the current norms, practices, and structures,
that is, first-order changes or, in learning terms, single-loop (adaptive, reproductive) learning. The changes can also be second-order changes through double-loop (developmental, innovative, expansive) learning when breaking with prevalent norms and practices. Independent of the type of change desired, change is greatly dependent upon individual unlearning and learning (Argyris and Schön, 1996).
Learning in the Workplace Defined

There is no more a method for learning than there is a method for finding treasures...
(Giles Deleuze)

Individuals have probably been learning in the workplace for as long as humans have been involved in work, from agrarian to industrial to post-industrial societies. Learning in the workplace has become a significant area of study, theorization, intervention, and examination of practice among scholars.

The current concept of workplace learning has been developed mainly from research conducted over the last two decades, and has been stimulated mostly by the realization that skilled practice requires continuous on-the-job learning. An important factor that may contribute to our understanding of the concept is the combination of three components: work, place, and learning (Malloch et al., 2011). Malloch and colleagues (2011) emphasize that work is more than an activity carried out to produce a product or outcome remunerated by an employer. Work, they point out, has a purpose and is an intentional act that may be a matter of employment or remunerated activity. Place, in relation to learning and cognition, can refer to both physical and spiritual locations but also may be related to spaces in which we use ourselves as learners. Moreover, the social interaction aspect of learning offers useful thoughts for the consideration of how and where workplace learning occurs. Learning has been the most clearly defined concept out of the three (work, place, and learning) and has been studied with different research-based models and theories (Illeri,s 2009; Jarvis, 2001; Smith and Pourchot, 1998)  In the classic literature on human learning, learning has been defined, depending on the point of departure, as a relatively permanent change in behaviour, in knowledge, or in cognition as a result of experience. Over time, the scientific focus has shifted from viewing learning as an end product to focusing on the process or individuals’ construction of meaning, as defined by Dalhgren (1984, 23): ‘to learn is to strive for meaning, and to have learned something is to grasp its meaning’. Later, the scientific focus shifted towards seeing learning as an individual’s construction of meaning situated within a social context and process. The complex learning process is then defined in a more comprehensive way as ‘an entity which unites a cognitive, an emotional and a social dimension into one whole. It combines a direct or mediated interaction between the individual and its material and social environment with an internal psychological process of acquisition. Thus, learning always includes both an individual and a social element, the latter always reflecting current societal conditions, so that the learning result
has the character of an individual phenomenon which is always socially and societally marked’ (Illeris, 2003 p. 227).

In the more traditional view, learning related to working life has mostly been associated with Vocational Educational and Training (VET); where education is seen as more comprehensive and extending, and training as more specific and bounded. In recent years, other scholars have defined learning, in line with Illeris’s (2003) definition, as ‘an interaction between an agentic individual’s mind and a socially constructed community of practice’ (Cairns and Malloch, 2008, p. 10). Learning is then viewed as occluding everywhere (place) all the time. Work therefore, and the social infrastructures that foster learning, can (and should) be designed so that learning can take place as, and when, it is needed (e.g., Marsick and Watkins, 1999; Wenger, 1998). This new way of thinking about learning exemplifies the shift in research towards no longer assuming that education and training are the only ways to organize employee learning.

**Theorizing on Learning in the Workplace – a Historical Tracing**

Theories of workplace learning have increasingly evolved over the last 20 years, most based on awareness of the limitations of traditional vocational education. The old prevalent assumption that all learning needed for successful performance could be identified in advance and instructed in a formal course has been shown not to work. Thus an initial focus on formal learning has been extending to also paying attention to informal learning. Knowledge is then viewed as being generated at work and through work (Lave and Wenger, 1991; Marsick and Watkins, 1990; Poell, 2004). In addition, awareness has emerged that an alignment between formal training/education with the practice of the education is necessary (Ellström, 2001; Malloch et al., 2011; Marsick, 2009), and the initial focus on individuals has been expanded to comprise organizational and group learning.

A range of theories classified as psychological, socio-cultural, and postmodern can provide a historical tracing of the development of theory in the field of workplace learning. The postmodern approach to learning differs from other approaches in fundamental ways when it denies the importance of rationality and logic in attaining knowledge and accepts that knowledge, because of its contextual nature, can be contradictory. Theories of workplace learning that fall under this category are based on actor network theory, complexity theory, and also some recent cultural-historical activity theory. The theoretical framework used in this thesis is based on psychological and social-cultural theories, which are presented below. The social-cultural theories and some of the later psychological theories provide the theoretical
ground for how learning can be promoted (or hindered) at the workplace and how it can be influenced by numerous factors other than individual abilities. These theories comply with the complex definition of learning and the subjective view of the learning climate and are the framework for investigating the process and consequences of a learning intervention in the context of elderly care.

**Psychological theories**
A psychological school that studies the external workings of human beings (and of animals), that is called behaviourism, was a major influence on vocational education. Grounded on the idea that learning is ‘a relatively permanent change in behaviour as a result of experience’, learning should then be understood and explained in terms of what is directly observable. A practical implication of this theory thus would be that the required learning can be acquired through training before joining the workplace. However, to begin with, learning is not a change in behaviour but a process, whereas the change in behaviour is the product of a previous process (Jarvis, 2006). Besides this definitional problem, a more practical problem with behaviourism, in relation to workplace learning, is that most work is not as predictable as required by the theory. The idea that learning is a product (or a thing), is one feature of behaviourism that survived the demise of the theory, appearing along with the concepts thinking, knowing, and understanding in cognitive theories. Those concepts, although associated with learning, refer to activities inaccessible to direct observation (Kalantz and Cope, 2009) that are inherent in some of the earliest investigations of workplace learning.

One landmark contribution to theorizing workplace learning is provided by Cris Argyris and Donald Schön’s work (1974, 1978). Influenced by organizational psychology and management theory, they coined some dichotomies that later characterized workplace learning theories. *Single- and double-loop learning* is one of those dichotomies. Single-loop learning captures individuals or organizations repeatedly attempting to do things right by resolving the same problem with the same method and without questioning the goal. Double-loop learning captures individuals’ or organization’s attempts to modify the goal in the light of experience or even questioning and rejecting the goal in order to do the right things. Another significant dichotomy is *espoused theories and theory-in-use*, which emphasize that what is actually done (theory-in-use) differs from what is claimed to be done (espoused theories). Another important account for workplace learning was the confrontation of traditional understandings with the help of the concept *knowing-in-action*, which depends on *reflection-in-action* (Schön, 1983, 1987). Schön’s central notion of reflective practice however, still focuses on the rational and cognitive aspects of performance.
Major work on informal learning, carried out by Marsick and Watkins (1990), contributed as well to expanding the notion of workplace learning. The way of thinking about learning in Marsick and Watkins’s (1990) work is characterized by learning being experience-based, non-routine, and often tacit. Besides incorporating such ideas as learning from experience and by doing, their work also incorporates ideas of learning being incidental and self-managed, that continuous improvement demands continuous learning, as well as ideas about learning organizations (Marsick and Watkins, 1992). The importance of the organizational culture is recognized as well, although the highlighted conditions that optimize or hamper learning are still mostly seen as inherent in the individual.

From the perspective of workplace learning, the key point of cognitive psychology surely is the statement of the social nature of skills and practices. In Dreyfus and Dreyfus’s (1986) and Dreyfus’s (2001) investigation of the development of expertise, even though the focus still lies on individuals as learners, the collaborative character of informal learning is illuminated. This theorizing is both criticized and embraced as another theory of relevance, that is, Nonaka and Takeuchi’s (1995) model of knowledge creation. In their model of knowledge creation, Nonaka and Takeuchi claim that the site of social interaction stands between tacit and explicit knowledge, whereby knowledge is converted from one type to another, creating new knowledge.

Those theories briefly discussed above, although contributing to the development of the notion of workplace learning, are still problematic and limiting in a number of aspects. In the modernistic agenda of the theories that follow below, the focus moves from privileging human consciousness and intention towards seeing learning as a process located in the framework of participation.

**Socio-cultural theories**

The socio-cultural workplace learning theories reject many of the main assumptions of the psychology-based theories. First and foremost, holism, instead of mind-body dualism, is a common feature in the social-cultural theories. Also, as an alternative to the rigid focus on rationality and cognition and the notion that learning is a thing, there is an emphasis on the social aspects of learning as well as on learning being a context-dependent and ongoing process.

Earlier general learning theorists, such as Dewey (1916) and Vygotsky (1978), had a major influence on much of the work rejecting the mind-body dualism. Vygotsky, for instance, was the first modern psychologist to suggest the mechanisms by which culture becomes a part of each person’s nature (Jarvis, 2006). His work has been fundamental in opening up the possibility of developing a social version of learning and in showing the strength of viewing learning as future-oriented.
One of the first works in which learning clearly is not seen as a thing is the work of Lave and Wenger (1991). According to them, learning is to be approached as a process that involves acquiring an identity within a specific community of practice. Thus, learning a task also involves the dynamics of participation in a group. These dynamics of participation, or legitimate peripheral participation, are what enable the individual to acquire knowledge and a place in the community. In this sense, learning is less a matter of content than a matter of being and of learning how (Malloch et al, 2011). Although viewed as ground-breaking in workplace learning theorizing, Lave and Wenger’s key notion of community of practice has been criticized as rather vague (see Hodkinson and Hodkinson, 2004).

Engeström’s (1987) first approach to activity theory also has been very influential to the evolving of workplace learning. His work drew heavily on Vygotsky’s concept of mediation, and brought together cultural artefacts with human actions in order to dispense with the individual-social dualism. However, Engeström (1987:157), contrary to Vygotsky, argues that ‘learning is not only a necessary precondition of development—development is also a necessary and always present ingredient of learning’. Engeström (1987, 1999, 2001) also focused on the relationship between components of an activity system. In the light of this, workplaces are then viewed as activity systems with subjects, objects, tools, rules systems, division of labour, and mediating artefacts as their components. Thus, learning happens as work proceeds through solving the emerging contradictions and tensions, or as Jarvis (2006) put it, a learning activity is a mastery of expansion from actions to new activity. Later, in order to better understand the transfer of learning, the concept of boundary crossing between activity systems was proposed (see Tuomi-Gröhn and Engeström, 2003).

Stimulated by the work of Lave and Wenger and Engeström, Fuller and Unwin (2003, 2004) developed a new conceptual framework for analyzing the incidence and quality of workplace learning: the expansive-restrictive continuum. Guile and Young (2003), Guile and Okumoto (2007), Eraut and colleagues (2000, 2004), and Evans and colleagues (2002, 2004) also have sought to understand and explain workplace learning, so the conditions that support and enhance quality learning can be identified and implemented.

New concepts aiming to better describe the ways in which practitioners redesign their practices through engaging in them are in Billet’s (2002) first account of workplace learning. Billet also criticized the fact that the role of personal agency was left out in earlier socio-cultural theories of learning (e.g., Billet, 2001, 2004, 2008a, 2008b, Billet and Sommarville, 2004). He thus has proposed a relational theory of expertise, in which expertise is inherent in particular social practices and their knowledge domain. Hodkinson and Hodkinson (2004b) partly agree with Billet, but they see individuals as reciprocal parts of the social context in which they learn.
Besides their criticism of Billet’s theory of expertise, Hodkinson and Hodkinson (2004b) also contribute to the theorizing of workplace learning by enriching the notion of communities of practice with evidence drawn from case studies.

To sum up, learning’s location in the framework of participation instead of inside of the learner is the common feature of social-cultural theories. However, although the dimensions of the concept of learning are being expanded because of the increased research attention learning is receiving lately (see, e.g., Boreham, 2004; Boreham and Morgan, 2004; Garavan and McCarty, 2008), collective learning is still quite under-theorized.

**Learning in the Workplace – Central Aspects**

Learning in the workplace is shaped by different factors, such as processes of change, structural aspects, and climate. Besides the process of change in individuals and groups, the process of change in the organization as a whole is an aspect to consider. The notion of organizational learning emerged as early as the 1960s and 1970s, when it was argued that organizations can and do learn (e.g., Argyris and Schön, 1978). Both the notions of *learning organization* (structure) and *organizational learning* (process) are of great importance (Yeo, 2005). Learning organization is a collective entity, and the question to be answered is ‘what are the characteristics of an organization such that it (represented by all members) may learn?’ Both economic prosperity and high productivity have been associated with this proactive approach to change of being a learning organization. Organizational learning, on the other hand, is a process capturing ‘how’ learning is developed in an organization (Yeo, 2005).

Besides being concerned about the process of change and the structural aspects—that is, the working conditions and practices of cultural, material, and social character that may foster learning—how the structural aspects are perceived is of major importance (Ellström, 2001; Ellström, Ekholm, Ellström, 2008). Those individual perceptions of a work environment, in research referred to as *climate*, mediate the relationship between the organizational context and individual responses (James and Jones, 1974; Schneider and Reichers, 1983). Simply put, climate perceptions influence individuals’ and groups’ capacity to identify and take advantage of the structural aspects. Other scholars, however, view climate in more objective terms.

Learning in the workplace can be assessed in different ways, although it is defined quite similarly. How to assess it depends on whether the focus lies on the processes of change, on the structural aspects that support learning, or on how the learning climate – one of many climates for people to make sense of in work settings (Schneider and Reichers, 1983) – is perceived.
Moreover, the focus may lie on the capabilities of individuals or the groups or on the opportunities they get to learn, and also on the learning of the organization as a whole. Besides, other ways of assessment learning at the workplace are related to whether it is formal learning through training or informal learning at the workplace that is to be studied. The transfer of knowledge from training to practice is also related to measuring considerations, because it can be viewed as the result of learning.

Although the body of research concerning workplace learning has several points of departure, as discussed above, evaluations of outcomes of learning interventions have been focusing primarily on outcomes of formal training in terms of an individual’s increased level of skills and competences. Learning interventions, per se, often may be based on policies reflecting acceptance of an individualistic learning as a product assumption, and fail to connect with the very activities that they are supposed to influence and support (Malloch et al., 2011). Salas and Cannon-Bowers (2001) have shown, however, that events before, during, and after training may optimize the benefits of training. For that reason, the relation between the perceived learning climate and outcomes of learning interventions or changes in the perceived learning climate as an outcome of those interventions should be considered.

Since individual interpretation is crucial to understanding the learning experience, approaching the individual’s perceptions of the learning makes it possible to capture a greater variability in interpretations. As mentioned earlier, the variability in the extent to which people within a group take advantage of learning may depend on aspects besides personal characteristics, such as their psychosocial environment. Thus, from a psychological point of departure, in this thesis it was considered important to focus on the individual’s perceptions of the learning climate in order to capture all of these factors more inclusively. The Learning Climate Scale (LCS), the instrument used and further developed in this thesis to assess the individual’s perception of his/her workplace learning climate, assesses centrally the ‘social element’ of learning. Assessing the social element of learning is considered relevant in this thesis and of greater importance than assessing the increased staff competence when evaluating an intervention aiming to build new infrastructures for learning and to increase the quality of elderly care. When breaking away from the view of individualistic learning as a product assumption, evaluating the social element of learning may reveal that unsatisfactory situations require broadening the understanding of workplace learning.
Psychosocial Environment for Learning

Whether learning and competence development become reality, may depend on the psychosocial environment, which can either help or hamper learning (Ellström et al., 2008; Mikkelsen, Saksvik and Ursin, 1998). The work itself, and the conditions under which it is accomplished, must have certain features for learning to occur. A match between current skills and work tasks together with the adequate resources to accomplish the tasks, and the level of workload, are some of the influencing aspects. Besides, how learners experience, understand, and evaluate the structural aspects supporting learning is of importance (Ellström, 2001; Ellström et al., 2008). The learner’s perceptions of the learning climate can be said to mediate the relationship between the structural aspects (organizational context) and the actual learning (individual responses) and use of knowledge.

Learning Climate

Climate is a ‘property’ of the individual and reflects an individual’s perception of how it feels to work in the organization; it should not be confused with culture. Although similar concepts, culture is a property of the system, and shared meanings about traditions, ways of doing things, values, and implicit assumptions of those within an organization are part of an organization’s culture. This individual-versus-system orientation sets climate and culture as two distinct constructs (James et al., 2008).

Climate can be viewed as what personality is to individuals, a set of characteristics that distinguishes one from another (Hoy and Miskel, 2008). In this sense, climate is seen as an attribute of the organization (Ekvall, 1996), coming quite close to the notion of culture. This type of approach reflects some notion of universalism in organizational phenomena, and organizational climate can then be defined as ‘the overall meaning derived from the aggregation of individual perceptions of a work environment’ (James et al., 2008). Climate perceptions are shaped in employees’ immediate work setting, however, and a work group may show the same differences within itself as do other units (Dansereau and Alutto, 1990). According to James (1982), regardless of whether there is a consensus (shared perceptions that can be aggregated) or not, among individuals’ perceptions, climate is still the property of the individual.

When taking a more subjective view of climate as a point of departure, climate perceptions can be considered to provide the context for understanding employee attitudes and behaviour (Schneider et al., 2000). Climate is then viewed as a mediator in the relationship between the
organizational context and individual responses (James and Jones, 1974; Schneider and Reichers, 1983). Employees whose perceptions of the work environment (the climate) were more positive were more likely to appraise change favorably and also showed higher job satisfaction, psychological well-being, and organizational commitment, as well as lower absenteeism and turnover intentions (Martin, Jones and Callan, 2005). Moreover, when comparing individual and organizational learning climates and, for instance, their relation to job stress, a much stronger relationship between individual learning climate and job stress was found (Mikkelsen et al., 1998). When seeing climate as an organization’s reality, many of the random errors and sources of bias on the individual level will tend to cancel each other out (Glick, 1985).

Work settings consist of a multitude of climates for people to make sense of. The ‘climates for something’ approach is a way to relate features of the climate with some specific outcomes (see Schneider and Reichers, 1983). This line of research focuses on specific climate areas, such as safety (Mearns, Whitaker, and Flin, 2003), which have been linked to safety compliance in the health sector (Murphy, Trailer and Hill, 1996), and service (de Jong, de Ruyter, and Lemmink, 2004, 2005), which is related to the customer service climate (Schneider et al, 2009). Creativity and innovation have also been investigated by Ekvall (1996) and Isaksen and colleagues (1999 and 2001); team climate has also been investigated (Anderson and West, 1996, 1998). Learning climate, which reflects the space for learning in an organization (Örtenblad, 2002), is one of the climates of importance, it is the one that is in focus in this thesis.

The concept of learning climate relates to employee perceptions about how their workplace either facilitates or hampers learning (Mikkelsen et al., 1998). In spite of relatively homogeneous perceptions of the learning climate, there will still be variation among individual employees about factors influencing learning, in turn influencing individual beliefs and their responses (DiMaggio, 1997). Even though there have been attempts to create a general model of what constitutes a learning climate (see, e.g., Bartram et al., 1993), a model that has been used to investigate the learning aspect of the climate in relation to specific outcomes (see Mikkelsen, Saksvik, and Landsbergs, 2000), there is no consensus about such a model today (Clarke, 2005; Lähteenmäki, Toivonen and Mattila, 2001; Marsick and Watkins, 2003). Thus, researchers investigating learning at work have focused, predominantly, on one aspect at time.

The conditions promoting participation in informal learning at work are commonly addressed investigating facilitators of learning at work (Clarke, 2005). Collaborative potential and relational practices, such as communication and dialogue in the organization, are some of the central aspects of a positive learning climate. Fundamental here is the extent to
which individuals and teams are given opportunities to reflect, plan, and develop their work together (Boreham and Morgan, 2004). In line with Billett’s (2004) view of workplace learning as learners participating in situated work activities, individuals understanding that they are not on their own creates a condition that promotes collaboration and, consequently, learning.

Besides the importance of individuals functioning collectively, managerial support is another central aspect of workplace learning, because encouragement is not only complimentary but educational. The importance of leaders for their followers’ subsequent learning has been shown by several researchers (see Amabile, Schatzel, Moneta and Kramer, 2004; Ekvall, 1996; Rushmer, Lough and Davies, 2004; Tannenbaum, 1997), and the leaders’ accessibility, supportive and empowering behaviour, and communicative skills were addressed as key aspects. Argyris (1993) refers to a specific leader competence of leading-learning, and it has been found that leaders who are willing to be learners themselves are supportive of developing others (Rushmer et al., 2004). Opportunities to engage in supportive social practices (Billett, 2004; Boreham and Morgan, 2004; Clarke, 2005; Marsick and Watkins, 2003) are also a major facilitator of learning at work. Supportive social practices, however, constitute more than getting managerial support. Social support reflects the importance of support from colleagues, which in turn promotes acceptance for trying new ideas and learning from mistakes.

Another important aspect for workplace learning is the extent to which existing skills are made visible and are applied, together with possibilities for individuals to develop additional skills. Challenges and the developmental potential that the job itself offers are suggested to be necessary conditions (Clarke, 2005; Ellström, 2001). Yet, those with higher levels of education are the ones that often can use and develop their skills and are provided with more job training opportunities (Coetzer, 2007; Karasek et al., 1998). A final main feature necessary for learning to occur is whether individuals have the power to decide what to do and how to do their work. In practice, the existence of a space for individual initiatives where people are allowed to experiment with new methods and get a response is of great importance (Taris and Feij, 2004). Leaders, at least, benefit from such work environment with challenging work tasks and high decision autonomy (Westerberg and Armelius, 2000).

**Interplay between Learning Climate, Skills, Use of Knowledge, Resource Adequacy and Workload**

In enabling learning environments with a learning-supportive climate (Ellström et al., 2008), employees perceive the features that facilitate
learning as greatly outweighing the hindrances, which will influence their beliefs positively. In more constraining learning environments, in which for instance job demands—those aspects of the work environment that overburden employees’ capacities—outweigh the possibilities, employees’ beliefs may be influenced in the opposite way (Lazarus and Folkman, 1984; Bakker et al., 2003). However, because workload is the ratio of demands to available resources, assuring that employees have the means they need to perform their tasks (Bacharach and Bamberger, 1995; Villanova and Roman, 1993; Xie and Salvendy, 2000) should alter their interpretations of their workplace experiences.

Although inadequate resources are seldom possible to compensate for (Martínez-Tur, Peiró and Ramos, 2005), workload may not only be a function of task load but also a function of environmental factors (Bi and Salvendy, 1994), such as poor learning climate or changing conditions. As suggested by Lazarus and Folkman (1984), people prefer small changes with highly predictable outcomes. One can then presume that when rapid and extensive changes occur, this can be a source of distress for employees. Also a lack of change, when opportunities for desired learning are not available, could become a source of distress. Workload, although not always being seen as exclusively negative (see van den Broeck, Vansteenkiste, De Witte, Soenens and Lens, 2010), has been associated with stress-related ill health in care work and is increasingly considered to influence the quality of care (Hertting, Nilsson, Theorell and Sätterlund Larsson, 2005, Holden et al, 2011).

Providing learning opportunities and direction in skill application are seen as key strategies that moderate high demands (Karasek, 1979), and are found to buffer negative effects of unmet expectations on employees’ health (Proost, van Ruysseveldt and van Dijke, 2011). However, although learning new skills may be perceived as a positive challenge, it can also be perceived as an added burden (Karasek and Theorell, 1990). Mikkelsen et al. (2000) have found organizational interventions to sometimes place additional demands on employees. For instance, when interventions are not integrated with the existing work activities, it is likely that they demand additional resources. Also, if the demands for ‘unlearning’ and learning exceed the capacity of the individual, they may lead to negative health consequences and adversely affect performance at the workplace (Burke and Richardson, 2000; Golembiewski and Munzenrider, 1988; Levine and Ursin, 1991).

The organizational conditions and climate that provide the appropriate level of challenge for learning to occur are therefore of importance in maintaining workplace health (Mikkelse et al., 2000). Because events before, during, and after training influence the benefits of training (Salas and Cannon-Bowers, 2001) climate would also be of considerable importance when trying to assure the transfer of knowledge from training to practice.
Although climate is considered a neglected research area, it was found that context matters and that the learning environment varies across organizations, confirming the need to study similar variables. Also, the transfer climate and support of different kinds have been found to influence the degree to which new knowledge is used in practice; leaders thus may help shape the degree of transfer through informal reinforcement (Salas and Cannon-Bowers, 2001). Martin (2010) showed that the skills of trainees in a division with more favourable climate and with better peer support improved to a greater extent. In this sense, staff skills should be influenced by the learning conditions at the workplace and be associated with training outcomes (Clarke, 2005).

The strong correlation between climate and knowledge transfer found across several studies (Martin, 2010) is of great relevance when studying the influence of learning interventions, as in this thesis. When newly acquired knowledge is successfully transferred into practice, it has been shown to positively affect nursing practice behaviour and potentially improve patient outcomes (Asselin, 2001). All in all, awareness of those aspects as well as of their interaction make knowledge about the learning climate important for expanding theories of workplace learning but also for those responsible for organizational development activities.
Quality of Elderly Care

Quality of care has been seen as the issue of importance in diverse care settings (Institute of Medicine, 2001), and elderly care of ‘good quality’ is a requirement from the Social Services Act in Sweden today. In order to ensure good quality, the Social Services Act together with the National Board of Health and Welfare’s recommendations for social services require systematic and continuous quality development work (National Board of Health and Welfare, 1998). Specifically, it is recommended that elderly care organizations have a system for establishing quality goals as well as for planning, performing, evaluating, and developing quality. The purpose of a quality system is to ensure, through diverse actions, that the service needs of elderly care recipients are met (National Board of Health and Welfare, 1998). Yet this tradition of quality assurance and evaluation in Swedish elderly care is rather new.

Intervening in order to increase staff competence and promote elderly participation are some of the actions proposed in order to ensure elderly care quality (Davies, Laker and Ellis, 1997; Department of Health, 2000 and 2001; Little and Ryana, 2010; Wiener, 2003). This notion of a robust relationship between competence development and quality of care has a long pedigree (Clarke, 2012). Care workers continuously updating their skills and competences is then seen as one way for organizations to maintain (at least) the level of quality through changing conditions. Moreover, people is thought to learn effectively when working with real-time problems in their work settings, motivated by the participation in collaborative practices in which something useful is produced (see Cho and Egan, 2010; Lave and Wenger, 1991). Although similar pedagogical notions, there is a clear distinction in the level of ambition related to change when applying different approaches (Engeström and Sannino 2010).

Quality Improvement Collaboratives is one of the most widespread approaches used in facilitating and guiding quality improvement in healthcare and elderly care settings (Schouten, Hulscher, Everdingen, Huijsman and Grol, 2008). Quality Improvement Collaboratives are temporary structures that support learning and thus can be seen as temporary learning organizations (Øvretveit et al., 2002). Such interventions initiate processes through which learning is developed in an organization (Hearld, Alexander, Fraser and Jiang, 2008), and then are expected to have a positive impact, because their goodness of fit is assumed (see Randall and Nielsen, 2012). The evidence of the positive impact of Quality Improvement Collaboratives, however, is limited (Broer, Nieboer and Bal, 2010; Cretin, 2004; Dückers, Spreeuwenberg, Wagner and Groenewegen, 2009; Schouten
et al., 2008). One reason for the limited evidence is that evaluations of such interventions are not always conducted (Aylward, Stolee, Keat and Johncox, 2003; Ross, Carswell, Dalziel and Aminzadeh, 2001; Hasson, 2006). Another reason is that even when they are conducted, evaluations have suffered from methodological weaknesses such as small sample sizes, lack of a control group, or low response rates (Aylward et al. 2003, Beck, Ortigara, Mercer and Shueet, 1999). Also, the lack of long-term measurements has been reported to limit the knowledge about the effects of interventions (Aylward et al. 2003). More recently, evaluations studies have been criticized regarding the omission of contextual and process factors (Biron et al, 2010; Egan at al., 2009; Randall et al., 2005). For instance, only a few attempts have been made to study what factors determine the success of Quality Improvement Collaboratives (Broer et al, 2010; Cretin, 2004; Dückers et al, 2009; Schouten et al, 2008)

As mentioned earlier, besides increasing staff competence, another proposed way to improve quality is to promote participation. Involving elderly care recipients can be done in different ways. First, quality evaluations, besides being expert-based, can be user-based. Simply put, in a user-based approach to quality the client (patient or elderly care recipient) is asked about what in the service experience gives him/her satisfaction (Gummesson, 1992). In this type of quality measurement, traditionally included in service organizational research (Seth, Deshmukh and Vrat, 2005), the customer is seen as a co-producer of the service process, and can judge the quality of a service based on the service outcomes (see Edvardsson 1996, 1998). Health-care research has started to reinforce the patient position as well (Nordgren 2003, Sitzia and Wood 1997). In elderly care, user-based approaches have been used to evaluate quality (National Board of Health and Welfare, 2001), which is in line with the recognition of the elderly’s autonomy and integrity as key aspects of good quality (see SOU 2008:51).

Even though the Social Services Act prescribes that elderly care must be based on respect for the elderly’s autonomy and integrity, there is a gap between the political intentions and praxis (Little and Ryana, 2010; National Board of Health and Welfare, 2000:4). In general, the interaction pattern found between the elderly and nursing staff is characterized as dependency-supportive (Grow, Kasser, and Ryan, 1999). However, autonomy or volition – that is, the sense that one’s behaviour emanates from and is endorsed by oneself – is one of the basic psychological needs that must be fulfilled for quality of life to be enhanced (see SDT, Deci and Ryan, 1985, 1991). Moreover, this relation between autonomy and quality of life has been shown to be just as applicable to elderly requiring care as it is to people in other contexts and ages (Grow Kasser and Ryan, 1999). In this sense, an autonomy-supportive elderly care could optimize elderly’s quality of life.
‘The extent to which people feel supported in their ability to function autonomously, be choiceful, and make decisions’ (Grow, Kasser, and Ryan, 1999:938) allows individuals to actively transform values into their own. As contexts can yield autonomous regulation when autonomy-supportive, awareness about the conditions that nurture (or inhibit) regulation and internalization can contribute to the creation of environments that optimize people’s quality of life. Individual autonomy is embedded in particular relationships and circumstances (Sciegaj and Capitman, 1994), and the importance of the culture of an organization (Mattiasson and Andersson, 1995) and of the educationally related preparedness of the staff (Davies et al., 1999, Little and Ryana, 2010) is today recognized. A common conceptualization suggests that certain knowledge, skills, and attitudes are required, not only for carrying out the job in the best possible way, but also for involving the elderly in facilitating their autonomy. Thus there is a promising relation between the educationally related preparedness of the staff and autonomy-support, calling for further investigation of whether staff changes their working behaviour after improving their knowledge and skills (Hasson, 2006). In the specific case of this thesis, the question is whether staff became more autonomy-supportive after the learning intervention, which in turn is viewed as a quality indicator of elderly care.
Method

‘Although there is no method for finding treasures, treasure hunters are forever looking for maps and guides. What constitutes a treasure is highly personal, which is the reason why there can be no method for it. But a map or a guide confirms that the treasure exists, and motivates the searcher to begin the journey’.

(Czarniawska, 2005)

This thesis is based on four studies that make use of data from a case study research project conducted in elderly care in Umeå municipality in Sweden. This methodological section briefly describes how the process and consequences of the learning intervention Steps for Skills are studied by investigating the psychosocial learning environment as a central aspect of the building of new infrastructures for learning, as well as for elderly care quality. First a brief description of the case is made. The design and participants of the studies are described, followed by a description of the data collection procedures. An explanation of the statistical analyses is also included.

The Case

In all research projects there are ontological, methodological, and epistemological assumptions, and understanding the philosophical positioning thus may help researchers clarify alternative designs and methods for a particular research (Easterby-Smith, 1991). For the case study in which this thesis is based on, a notion of scientific knowledge that understands reality as holistic, emphasizes contexts, processes, and (to some extent) interpretation is found to be necessary.

The case study research strategy focuses on understanding the dynamics present within single settings, and the single setting studied in this thesis is public elderly care in Umeå municipality in Sweden. This organization committed itself to build new infrastructures for learning and development by means of courses directed to nursing staff, support to work groups to improve their quality of work, and leader development courses directed to first-line managers. A case study, which is an empirical investigation into contemporary phenomenon operating in a real-life context (Yin, 1994), is particularly valuable where the kind of control present in a laboratory is not feasible or not even justifiable (Miles and Huberman, 1984; Remenyi, Williams, Money and Swartz, 1998; Yin, 1994). Organizational interventions, like the local Steps for Skills studied in this thesis, take place in those complex environments that are nearly impossible to control, and where
control may not even be desirable (Nielsen, Fredslund, Christensen and Albertsen, 2006).

A total of 31 workplaces, including home help services and residential homes, voluntarily participated in the local Steps for Skills intervention during six months (which may have influenced the number of home help services participating). The workplaces entered the initiative at three different occasions (spring 2006, 2007, and 2008). At the individual level, the intervention was carried out by means of career paths, standing for in-house training in four steps, in addition to validating the current education. Step one implied attaining basic knowledge about several subjects such as ethics, quality of elderly care, and common basic values. Step two focused on the care assistant’s role as a contact person, and for those individuals who wanted the opportunity, the possibility to become work group pedagogical supervisors or to be involved in training at the workplace. Training to supervise groups and deeper knowledge in diverse relevant subjects was included in step three. Step four encompassed training in introducing new employees in the workplace and providing the possibility to further study caring science at the university level.

At the group level, work groups worked with Breakthrough Collaboratives, a model designed to support change and quality development through collaborative learning and originally developed by the American Institute for Healthcare Improvement (Breakthrough Series, 2003). The basic idea is ‘Plan, Do, Study and Act’ (PDSA); that is, a team is formed to identify a problem space where they want to improve, to set goals, to establish how to accomplish the task and to measure the improvement and select what changes can be made that are likely to contribute to an improvement. The change intervention is executed, and the results are reflected upon.

At the management level, the education for first-line managers was based on lectures, group supervision, and seminars held by external consultants during a period of a year and a half. In addition, optional individual supervision was included. Four different themes were included in the courses: the manager role, processes of change and how-to-lead processes, groups and group dynamics, and, last, research and development issues.

A case study encompasses a detailed examination of events (Mitchell, 1983), and an important advantage of the case material lies in the richness of its detailed understanding of reality. Special attention is given to complexities in observation, reconstruction, and analysis of the case under study, also incorporating the views of the actors (Zonabend, 1992). Explanations are then constructed around the context, process, and outcome, because an investigation framed around these ideas will yield far more of worth than one driven by a merely quasi-experimental starting point (Pawson and Tilley, 1997). Likewise, it is possible to identify what it is about
the measure that might produce change, which individuals, subgroups, and contexts may benefit most readily from the intervention, and which social resources are necessary to sustain the changes. In the present thesis, a mixed methods design was brought into the case study. In that sense, the tools best suited to answer the research questions, as well as ones with different weaknesses and strengths, were actively chosen, since methodological triangulation does not automatically ensure accuracy (Henwood, 2004).

**Design**

Studies 1, 2, and 3 present results from a questionnaire study conducted in this municipality between 2006 and 2009. Study 3 also includes data from observations and written documentation. Study 4 is a qualitative interview study conducted between 2007 and 2009. Study 1 was a cross-sectional study. Studies 2, 3, and 4 were longitudinal intervention studies. The intervention studies 2 and 3 were planned to use a quasi-experimental design, including individuals and workplaces that are not randomly assigned to the intervention along with comparison groups. The initial idea with comparison groups did not work because the intended comparison groups became study groups during the process. Besides the pre- and post-data, process data was also collected. Study 4 was a longitudinal qualitative interview study. The thesis, as a whole, is handled as a case study research with a mixed methods design. Figure 2 illustrates the studies design and participants.

**Figure 2. Design and participants in Study 1-4**
Participants

Staff
In the analyses used in this thesis, nursing staff and managers working in one municipality’s elderly care organization were included. Nursing staff was defined as nursing assistants and nursing aids. Two types of elderly care settings, home help services (HHS) and residential homes (RH), were included. At Time I, 368 questionnaires were distributed and 270 returned (response rate 73 percent). Most of the participants (91 percent) were women and their mean age was 44 years old (range 20 - 63). A majority of the participants had a high school or corresponding education (73 percent), 15 percent had an education from mandatory school only, whereas 12 percent had a university education. Of the participants, 82 percent worked in residential homes and 18 percent in home help services at Time I. Staff who did not answer the questionnaire at Time I were excluded from the questionnaire studies. These individuals were excluded because the aim was to follow individual changes over time. At Time II the response rate was 64 percent (73 percent, taking into consideration that only 238 of the 270 participant still worked in the organization at Time II) (n = 174). The distribution at Time II was almost the same; 83 percent worked in residential homes and 17 percent worked in home help services. In Study 1, 12 managers and 130 nursing assistants are included; in Study 3, the target sample were nursing assistants (n=212) from 33 workplaces who worked with the breakthrough model during the local Steps for Skills; in Study 4, nine nursing assistants/contact persons were included.

Elderly care recipients
Elderly care recipients who were capable of responding to interview questions were considered eligible for the study. Nursing staff and their supervisors together made the decisions regarding the capability of care recipients to participate. The elderly care recipients also were asked if they managed and wanted to participate in the study. Nine elderly care recipients age 76 or older (three men and six women) from four residential homes and one home help service participated.

Data Collection Procedures
The results obtained in the articles included in the present thesis are based on data gathered by self-administered questionnaires, observations, document analysis, and interviews. The nursing staff’s psychosocial learning environment as well as the elderly care recipients’ and their contact persons’ perceptions of quality of elderly care, conceived as autonomy-support, were the main outcome measures of this thesis.
**Questionnaires**

All questionnaire responses were anonymous and reminders were sent. Each respondent (staff) received an addressed, postage-paid envelope in which to return the questionnaire to the research unit. The questionnaires were distributed at workplaces to all currently employed elderly care staff. Workplace managers at each respective workplace distributed questionnaires directly to each employee. The managers responded to a Web-based questionnaire.

Staff respondents were asked to rate their learning climate (analyzed in Studies 1, 2, and 3) as were managers (analyzed in Study 1). In addition, staff was asked to rate the use of new knowledge (analyzed in Study 2) and workload and resource adequacy (analyzed in Study 3). The questionnaire was based on a learning climate questionnaire that has been tested among elderly care staff. The Learning Climate Scale (LCS) was partly constructed for the evaluation of Steps for Skills and further developed (see Westerberg and Hauer, 2009; Hauer, Nordlund and Westerberg, 2012) during the case study in which a principal component analysis replicated the solution in independent samples. The LCS showed reasonable reliability. The questionnaire also included the assessment of the use of new knowledge by a single item (e.g., 'To which extent could you use the knowledge attained in the course directly in your work?'); a single reversed item assessed resource adequacy (e.g. ‘Are you given assignments without adequate resources to complete them?’); and three items assessed workload (Karasek et al., 1998) (e.g. ‘My job requires working very fast’, ‘My job requires working very hard’, and ‘My job requires an excessive amount of work’).

For the managers’ assessment of the work-group skills four items were used: 1. Staff possesses skills for effective problem-solving; 2. Staff possesses skills for effectively managing change; 3. Staff possesses skills for self-directed learning; 4. Staff possesses skills for effectively accessing information. The items were constructed by Clarke (2005) to capture workplace learning outcomes, associated with the acquisition of procedural knowledge, in healthcare organizations.

**Observation and written documentation**

Observations and document analysis were used in order to capture process data, that is, the content of the improvement work. The primary introduction of the breakthrough method and the final learning seminars when the teams made oral presentations of their quality improvement work were observed by the author. The written documentation of the quality improvement work, which was available both at the final seminar and through the organization’s intranet, complemented the observations.
**Interviews**

The conceptions of autonomy-support were assessed by means of semi-structured interviews (interview time: about 60 minutes), which included questions about the elderly care recipients’ daily routines around food and meals. Quality of care was operationalized as autonomy-support and measured qualitatively in Study 4. The circumstances captured were whether elderly care recipients are listened to, whether they are supported in expressing their opinions, whether their opinions are taken into account, and how much they can decide about their own actions. The nursing staff also was interviewed about their role as a contact person. Besides the guiding questions used as a frame for the interview, the interviewees were free to express their ideas. The interviewers had been tasked with asking for explanations until a common understanding was reached. The interviews were done by two different interviewers at Time I and by only one interviewer at Time II, and were tape-recorded with the consent of the interviewees.

**Data Analysis**

Different statistical analyses have been used to test correlation (Study 1) and main effects and interaction effects (Studies 2 and 3). The SPSS statistical package (version 18.0 and 19.0) was used for all statistical analyses (Studies 1, 2, and 3). Statistical significance for all analyses was set at p < .05 (two-tailed). Process data, that is, the content of the improvement work, was analyzed by hand (Study 3). The qualitative software programme Open Code 3.6 assisted in sorting, classifying, and coding the interview data (Study 4).

**Statistical analysis**

The Pearson correlation and Spearman’s rho were used for correlations. In all studies, internal reliability of the indices was measured using Cronbach’s alpha. In Study 1, a principal component analysis, with varimax rotation and Kaiser normalization, was used to test the item’s suitability for building indices. The general measure of inter-correlations between the items (KMO) was carried out. In Study 2 the assumed five dimensions of the learning climate were tested in three steps. First, a principal component analysis, with varimax rotation and Kaiser normalization, stating the existence of five factors was performed. The measure was trimmed so as to retain only the items that had replicated loading patterns in both studies. The 15-item Learning Climate Scale (LCS) revealed a clear five-factor solution. To examine the validity of the shortened scale, we administered it to an independent sample. A principal component analysis forcing five factors replicated the solution above. In Studies 2 and 3, paired sample t-tests and repeated measures ANOVA were conducted in order to examine main and interaction effects. Pillai’s Trace F-values and partial eta squared values were
presented. To avoid the problem that an unequal \( n \) created difficulty in computation and ambiguity of results, tests of effects were adjusted for potential overlapping variance (Tabachnick and Fidell, 2007)

**Qualitative analysis**

An inter-rater reliability analysis using the Kappa statistic was performed to determine consistency of the categorization in Study 3 (thematic analysis). In Study 4 (content analysis) inter-rater reliability was assured by a stepwise systematic process through which another author checked the appropriateness of the first text reduction. Later in the process of categorization, one of the authors compared the data fragments to develop categories for multiple statements and subsumed old or formulated new categories. The categories were revised after almost half of the material had been coded. The agreement of different raters was checked, with cases of doubt discussed within the research team. The developing category system was evaluated in order to ascertain that the codes were still meaningful in a broader sense (i.e., retained their ecological validity). The data set was re-examined to make sure that the categories were fully described. Existing theory helped focus the research question and also determine the initial coding scheme.

**Ethical Approval**

The study was designed according to the APA ethical standards. No formal ethical scrutiny was undertaken, because this was not required. The nursing staff and the elderly care recipients got oral and/or written information about the purpose of the interview study. The elderly care recipients were also asked to sign the informed consent form. Since, the case study was part of a larger evaluation study of Steps for Skills, the informed consent from the workplaces was included.
Summary of Studies

Study 1 – Learning Climate and Work Group Skills in Care Work

**Background and aim**

Leaders play an important role in the subordinates’ workplace learning. Knowledge development and learning are not only an issue of individual capacities, however. Leaders participate, as do their subordinates, in the organization’s social practices, and this participation shapes their understanding of leadership and their identity as leaders. Leaders can often benefit from a work environment with challenging work tasks and high decision autonomy, which would imply that they have more favourable learning conditions compared to their subordinates. On the other hand, there are studies indicating that the organizational climate and, more specifically, the experience of creative climate and learning culture do not need to differ between organizational job levels. In order to improve the infrastructures for learning, it is important to estimate if actions and perceptions of individuals at one level affect individuals of other levels of the organization. Moreover, first-line managers are often responsible for the subordinates’ work environment, including the learning opportunities, and should therefore be able to evaluate their subordinates’ skills in order to supply training when needed. Thus, the overall aim of the present study was to investigate the learning climate and work group skills perceived by managers and their subordinates in the municipal elderly care, prior to a...
development project. The specific research questions were: Are managers’ and their subordinates’ perceptions of the learning climate related? Does the manager’s assessment of the work group skills correlate with the work group’s perception of the learning climate?

**Method**

The study is a questionnaire study in which twelve managers and 130 of their subordinates were selected and answered the questionnaire. The subordinates belonged to work groups with 5–19 care assistants working in elderly care. The learning climate was assessed with 33 questions. For the manager’s assessment of the work-group skills, four items constructed by Clark (2005) were used. The Pearson correlation and Spearman’s rho were used for correlations.

**Findings and conclusions**

Each manager’s scores were correlated with the group mean values of their subordinates. The results showed that there was a significant correlation between the managers’ and the subordinates’ perception of the learning climate, suggesting that there is a correspondence in the perception of the learning climate between the organizational job levels. Regarding the learning climate subscales, significant correlations between managers’ perception of social support and subordinates’ perception of decision autonomy, collaborative potential, and developmental potential were found. In addition, subordinates’ perception of collaborative potentials was significantly correlated with managers’ perception of manager support, developmental potential and innovative climate.

The assessment of the total skills of the work group made by the managers had a positive but non-significant correlation with the work group’s perception of the learning climate. A significant correlation between the managers’ ratings of how the staff possesses skills for effectively managing change and the work group’s perception of their learning climate was, found, however. Moreover, the composite score of the total skills of the work group was significantly correlated with decision autonomy, collaborative potential, and developmental potential. Of the four skill items, managing change was significantly correlated with decision autonomy, collaborative and developmental potential and social support. This study contrasted the managers’ assessment of skills with their work groups’ perceptions of the learning climate, which is quite unusual in learning climate studies. We concluded that the relations found between the learning climate and the assessment of staff skills are important to the actions taken in order to facilitate workplace learning and development.
Study 2 – Learning Intervention, Learning Climate and Use of Knowledge in Elderly Care

Background and aim
In the more traditional view, learning is separated from the practical context and entirely associated with formal education and training. Today it is recognized that learning also happens informally at the workplace. Thus, research has shifted from assuming that formal education/training is the way to organize employee learning, to considering it as one of the ways to do it. However, since elderly care constitutes an important part of Swedish welfare policy, the lack of sufficient training among existing personnel has attracted attention from political society. In order to support municipalities’ long-term quality and skill development, an initiative called Steps for Skills was appointed by the Swedish government. The aim of the present study was to examine the learning climate in elderly care, its potential improvements after Steps for Skills, and its influence on knowledge gained from the formal training. The assumptions were that the different activities in Steps for Skills should enhance the perceived learning climate; that differences in working conditions in home help and residential homes should influence the perceived learning climate and its improvements; and that changes in the perception of the learning climate should bring changes in the perceived usefulness of new knowledge.
Methods
The study is a case study carried out in the public elderly care in Sweden and used a repeated measurements design. A total of 270 nursing assistants answered a questionnaire at Time I, and 174 at Time II. The learning climate was assessed using the 15-item Learning Climate Scale (LCS) and the use of knowledge was assessed using a single item. To test for simple main effect, a paired sample t-test for the full sample was computed. Repeated measures ANOVA were conducted when comparing groups.

Findings and conclusions
Results show no improvements to the learning climate for the full sample. When contrasting the learning climate in home help services and in residential homes, significant differences are found. A tendency for the learning climate to change in opposite directions in those two types of elderly care was also found. Moreover, the perception of the learning climate seems to influence the perceived usefulness of new knowledge. In conclusion, developmental interventions should take into consideration that context matters. Also important is the awareness that the perceived learning climate influences the use of new knowledge. Further contributions are made by addressing the fact that not only implementations of interventions are fraught with difficulty, but also that evaluations of their impact and that choosing one context over another may influence both research results and implications.

Study 3 – The content of the Quality Improvement Work: Influencing Learning Climate, Resource Adequacy and Workload
Background and aim
Continuous quality development and change through learning strategies are important in organizations. In health care settings, learning strategies are frequently used in order to achieve better quality, as seen in the different methods of quality improvement being launched. Most of the methods used are based on a pedagogical notion that people learn most effectively when working on real-time problems in their own work settings. At present, Quality Improvement Collaboratives are one of the most widespread and frequently used tools for sharing best practices in order to facilitate and guide quality improvement of clinical and hospital work. The evidence of the positive impact of Quality Improvement Collaboratives is, however, still limited. In Sweden, the collaborative work itself is emphasized, which means that success criteria other than rapid improvement can be highlighted. This paper is a report of a study conducted to explore the content of the improvement work and to examine how the content influences nursing assistants’ perceived learning climate, workload, and resource adequacy. The general purpose of the present study was to examine the relation between process and outcome and to understand why quality improvement work succeeds or fails by opening the so-called black box of Quality Improvement Collaboratives.

Methods
A mixed-methods design including observations and written documentation of the improvement work and questionnaires, distributed on two occasions to 136 nursing assistants from 21 workplaces/teams, was used in the present study. Qualitative and quantitative data were collected between 2006 and 2009. Learning climate was assessed using the 15-item Learning Climate Scale (LCS), workload using three items, and resource adequacy using a single item. The qualitative data were analyzed by means of thematic analysis. Repeated measures ANOVA with each of the study variables and using the themes based on the qualitative analysis as grouping variables were conducted.

Findings and conclusions
The examination of content of the quality improvement work resulted in three themes: individual solutions, changed milieu, and scheduled activities. The work of three teams was judged to fit under individual solutions, where all reflection and testing had been adapted to fit the situation of individual elderly care recipients. The quality improvement work in those teams can be considered to be flexible and situational. The work of ten teams was judged to belong to the theme changed milieu, and their work focused on improving the environment at the residential homes or in the homes of elderly care recipients. The work in those teams can be described as ‘out with the old (way of doing things), in with the new’. The work conducted in eight teams
was considered to fit under the theme *scheduled activities*. The teams focused on activities and offered a number of new group-based or individual activities to the elderly care recipients. The work in those teams was characterized by new tasks being added to current ones.

When investigating the extent to which the content of the quality improvement work was of importance for the success of the Breakthrough Collaborative in terms of perceived learning climate, workload and resource adequacy, the three content themes found in the qualitative analysis were used as a grouping variable. The results suggest that the perceived learning climate, workload, and resource adequacy were influenced differently by the different contents of the improvement work. In conclusion, the content of the improvement work differed both in nature and flexibility, even though the method used was the same. It means that choosing the ‘right’ method and assuring that the method is implemented is not enough to guarantee success. Moreover, nursing assistants must have achievable targets in relation to the resources available, and care improvements should not be achieved at the expense of their work environment; otherwise the improvement process may become counterproductive.

**Study 4 – Elderly Care as an Autonomy-Supportive Environment: From the Perspectives of Professionals and Elderly**
**Background and aim**

To be motivated means to be ‘moved to do something’. For people to be intrinsically motivated in contrast to doing something because it leads to a separable outcome, they have to experience their behavior as self-determined. It requires either inner resources or contextual supports for autonomy, that is, ‘the extent to which people feel supported in their ability to function autonomously, be choiceful, and make decisions’. The more one internalizes the reasons for an action, the more one’s extrinsically motivated actions become self-determined. Because individual autonomy is embedded in relationships and circumstances and contexts can yield autonomous regulation when autonomy-supportive, awareness about the conditions that nurture regulation and internalization can contribute to optimize people’s quality of life. In the present interview study the aim was to examine elderly care as an autonomy-supportive environment from both the perspective of professionals and elderly care recipients, as well as investigating whether Steps for Skills, an intervention aimed to improve care quality, enhances autonomy-support.

**Methods**

Elderly care recipients (n = 9) and their contact persons (n = 9) from four residential homes and a home help service participated in the interview study at Time I, and 7 contact persons participated at Time II. The interview data was analyzed by means of content analysis.

**Findings and conclusions**

The examination of the conceptions of autonomy-support resulted in a category system with three main categories (self-determination, influence, and expressed views) and two dimensions (enabling and constraining interactions). *Self-determination* captured enabling interactions in which the elderly care recipients have some decisional autonomy, executional autonomy, or captured self-determination through internalization. The constraining interactions captured mostly considered the lack of decisional autonomy, but also persuasion from contact persons and concrete hindrances to self-determination. In general, those daily interactions reflected the rules and routines of elderly care facilities, which do not allow much flexibility and negotiation. The results suggest that the contact persons and elderly care recipients have a shared perception regarding self-determined interactions. Regarding the set of interactions under *influence*, they seem to give proof of an existent space for negotiation in elderly care. The enabling interactions captured those situations in which elderly care recipients, through having opportunities to make choices, having their opinions taken into account, and also having some flexibility in the way things are done, successfully exerted influence. The constraining interactions are mostly negations of the enabling interactions. That the contact persons
and elderly care recipients did not have a shared perception of those behaviours or situations as the most outstanding dissimilarity between their narratives is found here. Contact persons focused on the opportunities elderly care recipients have to exert influence, whereas elderly care recipients focused more on constraining interactions. The third and last category, expressed views, reflects a commitment from both staff members and elderly care recipients to interact in a certain way, creating an opening to make things happen. It includes a set of occasions where elderly care recipients either take initiatives to express their views (or not) as well as to get support (or not) in expressing their views. Regarding the constraining actions listed under support to express views, dissimilarities were found between the narratives of the elderly care recipients and contact persons. In general, care recipients hardly focused on the support to express views category. Contact persons focused on constraining interactions regarding their own initiative to express views, while the elderly care recipients told a quite an opposite story. Those differences suggest a lack of shared conceptions between the elderly care recipients and the contact persons.

When investigating the possible influence of Steps for Skills on autonomy-support, no clear quality improvement in terms of increased autonomy-support was found. There is a quite stable relation between enabling and constraining interactions. There seem to be neither clear opportunities for the realization of commitments to work in an autonomy-supportive way nor any obligations built into the system to mandate this approach. The results suggest, however, that the views of contact persons came closer to the views of elderly care recipients and there was a rather distinct change in how contact persons give meaning to conceptions of autonomy-support. It might be so that the rights of elderly to exert influence have emerged in the existing discourse in elderly care, as a new interpretative repertoire appears in the contact persons’ narratives at Time II.

In conclusion, the results suggest that elderly care organization in the study is not an autonomy-supportive environment because of too many constraining interactions. Moreover, quality improvement work does not automatically increase elderly autonomy. Autonomy and elderly care may not be a paradoxical conjunction, however, if autonomy and independence are seen as separate goals of care.
Discussion

The present thesis aimed to improve our understanding of the process and consequences of the learning intervention Steps for Skills in the context of elderly care. The first research aim concerned investigating the psychosocial learning environment as a precondition for learning. The second research aim focused on the consequences of the intervention for employees in terms of their psychosocial learning environment and the building of new infrastructures for learning. The third research aim focused on the consequences of the intervention for elderly by addressing elderly care quality, conceived as autonomy-support.

Figure 3. The process and consequences of the learning intervention Steps for Skills in the context of elderly care
Psychosocial Environment as a Precondition for Learning

Little is usually known about the preconditions for learning per se as well as about the relation between these preconditions and skills before launching learning interventions. Thus, in order to study the first aim of this thesis, the psychosocial learning environment in elderly care prior to Steps for Skills was investigated in Study 1. In this study the results showed that first-line managers and their work groups have a shared perception of the learning climate and that there is to some extent a correspondence between managers’ ratings of work-group skills and the work groups’ perception of their learning climate. In general, the findings are in line with earlier research suggesting that there is a correspondence in the perception of the learning climate between people from different organizational levels (Ismail, 2005). However, because the relation found between a manager’s and his/her work group’s learning climate was based primarily on two different subscales that represent social aspects of work, another possible explanation could be that managers and their work groups share the perception of the social practice they are engaged in. Even if managers and their work groups do not agree on all the aspects that constitute a learning climate, they seem to be engaged in social practices; which is a recognized facilitator of learning at work (see Billett, 2004; Boreham and Morgan, 2004; Clarke, 2005; Marsick and Watkins, 2003). When supervisors and subordinates have been asked to evaluate work group or individual performance, earlier studies have shown inconsistencies between their ratings (Schrader and Steiner, 1996; Kline, 2001). The lack of consistency may depend on the fact that the comparison was made on a group level, however, which might disconnect the link between the leaders and their staff. Further, results from Study 1 showed that the work groups’ perceived learning climate has a strong relation to the assessment of the work groups’ ability to effectively manage change. This result could be related to Ismail’s (2005) findings of a change-capable system within learning organizations. Decision autonomy and potentials for collaboration and development, and quite remarkably not managerial support, are the subscales of learning climate found to be significantly related to work group skills. The results of Study 1 thus are in line with results presented by Clarke (2005) suggesting that opportunities for reflection and job challenges were associated with staff skills. In light of such findings, the work groups’ perception of the potentials for development and collaboration at their workplace are related to what kind of skills they possess.

Some conclusions can be drawn from these results. First, when considering the results of previous studies (e.g., Amabile et al., 2004; Bhanthumnavin, 2003; Rhoades, Shanock and Eisenberger, 2006) of the importance of leader support for group performance along with the results of
Study 1, some divergence is found. Contextual factors such as the working conditions and the work group development, rather than the leader’s capabilities, seem to be of importance, which supports the notions of the leader as a facilitator establishing a knowledge-sharing environment (Macneil, 2001) and of a learning or transformational leadership (Brown and Posner 2001).

Information about the psychosocial learning environment prior to Steps for Skills can also be extracted from Study 2. Significant differences were found when contrasting the perception of the learning climate in home help services as compared to residential homes. These findings have been shown before (e.g., Ellström et al., 2008), but this case highlights the vocational training of nursing assistants as one possible explanation of the variations in the learning environment. Experience-based learning in everyday work has been emphasized in elderly care (Törnquist, 2004; Ellström and Ekholm, 2001), and it is possible that the former education levels play a minor role. In this sense, a plausible conclusion, based on the differences in perceived learning climate found in Study 2, could be that workers having access to workmates in-house to discuss and plan work with has a positive influence on the learning climate—which is in line with the theoretical arguments presented in the study.

The results of this thesis, alongside previous studies, indicate the importance of examining the perception of the learning climate before launching learning interventions like Steps for Skills, and then investigating whether and how those perceptions are changed. Learning interventions might sometimes be used as a remedy for what is perceived as poor learning conditions. The success of this remedy may depend, however, on the existing facilitators of workplace learning. Considering the results in the present study, it is, for instance, still unclear which role leaders play in facilitating workplace learning, and more empirical support is needed (see Amy, 2008). In many learning interventions, activities are directed to either managers or individuals and work groups. The results concerning the perceived learning climate suggested a tendency for a more shared perception of climate between organizational job levels (vertical), however, than between groups of the same organizational job level (horizontal). Future research therefore specifically should examine learning climate agreement in organizations. To sum up, in line with Clarke’s (2005) suggestion, research should make more attempts to approach staff skills associated with training outcomes and learning conditions at the workplaces.

**Consequences of the Learning Intervention for Employees**

Even though research in recent years has shed more light on the consequences of learning interventions for the psychosocial learning
environment (see Hasson, 2006), fairly little is known about what it specifically is about the intervention that works, for whom it works, and also under which conditions it works. In order to address the second research aim of this thesis, the consequences of the intervention for employees in terms of their psychosocial learning environment and the building of new infrastructures for learning were investigated in Studies 2 and 3. More specifically, the changes in the perceived learning climate due to Steps for Skills were investigated. The question relating to for whom the intervention works was investigated by contrasting the changes in learning climate in home help and residential homes. Whether the success of the intervention, in terms of people applying the new knowledge acquired, was dependent on the learning climate was also studied. Further, a relation between process and outcome is addressed by investigating whether the content of the improvement work differed, and how changes in learning climate, resource adequacy, and workload were related to the different contents of the improvement work.

In this thesis it was hypothesized that the learning intervention would have a positive impact on employees’ learning climate. Contrary to what was expected, in analyses of the full sample it was shown that the activities of Steps for Skills did not enhance the nursing assistants’ perceived learning climate. This finding is in line with Martin’s (2010) statement that expected changes are seldom found in evaluations of the results of interventions; which in turn, could be explained by the lack of contextual and process factors in evaluation studies (Biron et al., 2010; Egan et al., 2009; Randall et al., 2005). Another related explanation could be that different individuals balance one another out, thus hiding the potential differences between some individuals or groups that did benefit from the interventions and those who did not benefit.

When the perception of the learning climate in home help services was contrasted with the perception of the learning climate in residential homes in Study 2, prior to Steps for Skills, significant differences were found. The differences were in favor of residential homes in which the learning climate was perceived as significantly better than in home help services, confirming earlier research (see Ellström et al., 2008). In Study 2, it was also predicted that differences in working conditions between the two types of elderly care would influence potential improvements of the perceived learning climate. The results showed a tendency for the learning climate to change in opposite directions in home help services and residential homes. The results thus suggested a positive influence of the learning intervention on the perceived learning climate in home help services. There are several potential explanations for these results. First, it is possible that Steps for Skills contributed in creating more systematic collaboration opportunities in a type of work that otherwise provides workers with limited access to workmates.
Second, the results may also indicate that the intervention might not have suited the needs of residential homes’ staff. However, more developed organizational environments have a more limited scope for further development—that is, the ceiling effect (Nielsen et al., 2006). Thus, the lack of improvement of the learning climate in residential homes after Steps for Skills, which was highly rated to begin with, may have to do with it reaching its upper limit. On the other hand, the manner in which learning is promoted is always contingent on local circumstances (Ramsten and Säljö, 2012). In addition, as stressed in Study 2, it is not possible to rule out the effects of another organizational change that occurred simultaneously with the intervention and affected only residential homes. Prior research however, has found organizational changes, in general, to be associated with the experience of stressful work conditions, uncertainty, anxiety, increased sick leave, lower work satisfaction, and harm to organizational culture (Brown et al. 2003, Donaldson, 2002; Kivimäki, Vahtera and Thomson, 1997; Petterson, Hertting, Hagberg and Theorell, 2005; Sverke, Hellgren and Näswall, 2002; Vahtera et al., 2004). Thus, this organizational change could have made it difficult for employees in residential homes to benefit from the intervention to the same extent.

In this thesis, it is also assumed and confirmed that changes in the perception of the learning climate influence changes in the perception of the usefulness of new knowledge. The individuals who perceived that the learning climate had improved after the interventions also perceived that they could use the new knowledge in practice to greater extent. This finding reinforces Martin’s (2010) results, indicating a relation between climate and knowledge transfer, and is in line with the findings showing that support of a social character from peers, subordinates, and supervisors plays a central role in the transfer and application of newly acquired knowledge (see Salas and Cannon-Bowers 2001).

Process factors were addressed in Study 3 by investigating the content of the improvement work. The contents were found to differ both in nature and flexibility, and were classified as scheduled activities, changed milieu, and individual solutions. The tested assumption that the perceived learning climate, workload, and resource adequacy would be influenced by the content of the improvement work was supported. When viewed as a whole, the psychosocial learning environment (here: the perceived learning climate, resource adequacy, and workload) of the teams working with the content classified as scheduled activities got worse, of those working with individual solutions got better, and of those working with changed milieu remained unchanged. Several conclusions can be drawn from these results. The notion of learning climate, which captures perceptions about what helps or hinders learning (Mikkelsen et al., 1998), implies that a decreased learning climate indicates that something is hindering learning. Hindrances may emerge, for
instance, from a higher workload, that is, ‘the ratio of demands to available resources’ (Xie and Salvendy, 2000), by new tasks added to current ones at the same time as the required resources are not available. This line of reasoning is also consistent with the argument that it is not always possible to compensate for inadequate resources (Martínez-Tur et al., 2005). Required resources must be provided in order to achieve the best results with an intervention (Gustafson et al. 2003). In contrast, the content classified as individual solutions entailed a different process, leading to a better psychosocial learning environment, or in Ellström and colleagues’ (2007) words, an enabling learning environment. For instance, having achievable targets makes it possible for staff to take advantage of the collaborative work. Furthermore, an explanation for the lack of influence by the intervention on psychosocial learning environment may be that the suitability of the intervention changed before the evaluation occurred (Randall and Nielsen, 2012) or that the follow-up investigation missed initial positive effects.

Based on the results of this thesis, it is suggested that the learning climate and its improvement seem to be influenced by the specific working conditions in the different contexts. The results also indicate that the success of learning interventions, in terms of people acquiring and applying new knowledge necessary to develop new skills, may depend on the learning climate before, during, and after training. It has been proposed that interventions show the best results when the real needs of staff are investigated prior to designing the intervention (Cowan, Roberts, Fitzpatrick, While and Baldwin, 2004; Donabedian 1996, Gustafson et al. 2003). In this sense, staff having the opportunity to choose the content of the improvement work together with having access to adequate resources to realize the improvement could correspond to ‘real needs’ of staff being taken into account.

Consequences of the Learning Intervention for the Elderly

The consequences of the learning intervention for the elderly, the third aim of this thesis, was addressed in Study 4 by investigating elderly care quality operationalized as autonomy-support. In order to investigate the influence of Steps for Skills on autonomy-support, self-determination theory (SDT) was used as the theoretical frame of reference.

Elderly autonomy is indeed the central principle in nursing ethics (Davies et al, 1997). In accordance with the social services act in Sweden, an elderly care of ‘good quality’ is an elderly care based on respect for the elderly’s autonomy and integrity (SOU 2008:51). In this thesis, an attempt therefore was made to bridge the existing knowledge gap between improving staff competence and improving the quality of elderly care (see Hasson and
Arnetz, 2006, Parks et al., 2005). In study 4, the existing conceptions of autonomy-support in elderly care were examined. The findings were then used as the basis from which to compare the level of autonomy-support before and after the learning intervention. The interview results showed a complex set of interactions between nursing staff and elderly, towards an autonomy-supportive elderly care. The interactions can be divided in three types or levels: (1) expressed views—capturing a potential commitment to interact in order to facilitate elderly autonomy, (2) influence—capturing a space for negotiation in elderly care, and (3) self-determination—capturing interactions that reflect care facilities’ rules and routines. However, instead of finding that interactions were mostly of enabling character, which would constitute an autonomy-supportive environment, quite a balance between enabling and constraining interactions was found; which at first could be seen as good enough. When striving for high quality elderly care, however, the constraining interactions ought to be only an exception. These findings are congruent with previous research suggesting that the interaction pattern between elderly and nursing staff is more dependency-supportive (Grow, Kasser, and Ryan, 1999). In addition, no clear quality improvement in terms of increased autonomy-support was found. Still, a new interpretative repertoire—that is, related sets of familiar and well understood words and terms (see Magnusson and Marecek, 2012)—emerged. Those related sets of words and terms may offer to the nursing staff a coherent way of talking and thinking about such things as elderly autonomy. Individual autonomy is embedded in relationships and circumstances (Sciegaj and Capitman, 1994); thus nursing staff acquiring a new interpretative repertoire may help them identify constraints in the everyday interactions. Another plausible conclusion is that acquiring new words and terms is a first step taken in a process of behavioral change.

In this thesis it is highlighted that there is a relation between autonomy and quality of life (Grow, Kasser, and Ryan, 1999), which makes autonomy-support an important quality indicator of elderly care functions. In addition, since autonomy-support is a quality indicator, a learning intervention aiming to improve quality ought to have a positive influence on autonomy-support. In light of those arguments, the findings in Study 4 confirmed that there is a current gap between the political intentions (an autonomy-supportive elderly care, which means good quality) and praxis (a dependency-supportive elderly care, which means lack of quality) (National Board of Health and Welfare, 2000:4, Little and Ryana, 2010).

Some conclusions can be drawn from these results. First, the elderly care organization studied in this thesis cannot be said to be an autonomy-supportive environment. Second, general learning interventions focusing on staff competence do not secure increased quality of elderly care in terms of autonomy-support. Yet, because both staff competence and user
participation have been proposed as means to optimize the quality of care (Davies et al., 1997; Department of Health, 2000 and 2001; Little and Ryana, 2010; Wiener, 2003), the question is whether staff competence together with user participation is the means to increase quality. Staff involvement and linking the learning intervention to the real needs of staff are important success factors for interventions; the same should apply for the elderly. Involving the elderly care recipients in the learning interventions and, in turn, assuring that the intervention actually is grounded in their perceived need, should have a double effect on their quality of life. Specifically, when the perceived needs of the elderly are met, the outcome of the learning intervention possibly will be a better quality of elderly care and, in turn, a better quality of life. Through the involvement process, elderly autonomy is also reached, leading to a better quality of life. Those conclusions are also related to Owen’s (1995) statement that it is possible to delay the elderly’s loss of ability through giving them choices and the freedom to make decisions.

Still, it is unclear whether the Steps for Skills intervention did not fully succeed in increasing the quality of elderly care or in just autonomy-support. However, if autonomy-support actually was something inherent in the system, then all (successful) learning interventions would increase autonomy-support. Until autonomy-support is embedded in every part of elderly care, interventions might have a better success rate if they specifically targeted these primary foundations of quality of life and, consecutively, of quality care. It would also facilitate drawing conclusions about interventions being successful or not.

**Methodological Considerations**

This thesis builds on a case study encompassing a public elderly care organization in one municipality. Case study research has advantages as well as potential shortcomings. A criticism of the case study research method is that it provides only a limited basis for the traditional scientific generalization (Remenyi et al., 1998; Yin, 2009), because studied phenomena and contexts are necessarily dependent. This criticism is less of a problem in this thesis, because the aim of the present case study was not to infer global findings from a sample to a population, but rather to understand patterns and relations of practical and theoretical importance. The relevant design tests—construct validity, internal validity, external validity, and reliability—were revisited as part of the design of the individual studies included in this thesis, as proposed by Yin (1994). To further overcome limitations in the case study research method, some authors have suggested the use of combined or multiple methods, for example, triangulation techniques. The fundamental notion of triangulation is that qualitative and
quantitative methods should be viewed as complementary rather than as rival methods (Jick, 1979), which also has been done in this thesis. Yet, the generalizability of the findings should be further examined in other elderly care organizations in other municipalities together with a multilevel approach combining data at the individual level, the workplace level, and the establishment level in the same analysis.

Studies 1, 2, and 3 were based on quantitative self-reported questionnaire data, and the use of this method (alone) has been associated with a risk for inflated associations due to common method variance (Campbell and Fiske, 1959; Podsakoff, MacKenzi, Lee, and Podsakoff, 2003; Spector, 2006). Another issue to consider is that self-reported data do not capture an objective reality (Spector, 1994), and different results might be obtained if more objective measures had been used. This thesis, however, focused mostly on how the learning climate is perceived and also on employees’ subjective perception of the use of knowledge, resource adequacy, and workload. With this aim, self-reported data is a relevant source of information and common method bias less of a problem (Spector, 2006). A possible critique of the most central instrument used in this thesis, the Learning Climate Scale (LCS), is that it is under development and was partly constructed for the evaluation of Steps for Skills. Yet, the LCS showed reasonable reliability and had been tested on larger samples prior to Study 1. Moreover, the LCS was further developed during study 2, in which a principal component analysis replicated the solution in independent samples. A confirmatory factor analysis should be performed, though, in a new sample. The impact of previous education on the perception of the learning climate was also tested without confirmation of its importance, suggesting that when experience-based learning in everyday work is predominant, prior education levels may play a minor role. However, previous education is measured in this thesis, with different levels of education distinguished but not different types of education within the same level.

Qualitative methods (e.g., observations, document analysis, and interviews), as mentioned above, were used in studies 3 and 4, providing a more comprehensive picture of some issues and methodological triangulation in this thesis. When one approach is followed by another, it increases confidence in the interpretation through the weaknesses in each single method being compensated by the counterbalancing strengths of another (Campbell and Fiske, 1959). Regarding the qualitative analysis per se, the generalizability of the results depends on the level of abstraction and also on the relation between the results and established theories. Regarding the first criterion, the content analysis resulted in a tentative model (Study 4), in which the representation of elderly care as an autonomy-supportive environment is based on the narratives of both contact persons and the
elderly. Despite this strength, a possible shortcoming could be that the frailest elderly were not included in the study at all. Although another system of categories could then be developed, the major results are highly congruent with previous research, and the categorization showed stability when tested longitudinally. The strength of the categories also relies on their relation to self-determination theory. The transferability of the results to related contexts can be assumed, given that there are similarities with earlier research, which seems to assure the applicability of the model outside the narrow context in which it is generated. In addition, the qualitative analyses in both Studies 3 and 4 are kept transparent so that other researchers can deduce that the analyses have added to our understanding of the data without distorting them (e.g., Hamberg, Johansson, Lindgren, and Westman, 1994). In qualitative studies such as Study 4, the researcher tends to act as her own instrument, which implies that how the researcher is perceived by the informants as well as his/her ability to pose relevant questions influence the validity of the results (Hamberg et al., 1994).

This thesis deals with ‘changing as learning’ in organizations. Change can be quite challenging in that it implies movement – from one state to another – and as movement, it is difficult to capture and measure (Falkenberg, 2010). Most data collection methods capture more of a static picture, whereas the change is what is taking place between the times when the data collection takes place (Bullock and Batten, 1985; Tsoukas and Chia, 2002). Studying the consequences of a planned change, as in the case of this thesis, getting to know about an organizational change before it begins, is less of a problem. Moreover, the combination of cross-sectional, longitudinal studies [and process] studies, as used in this thesis, has been highlighted as a way to give a clear picture of a phenomenon (Spector, 1994).

Intervention studies have been reported to suffer from methodological weaknesses such as a lack of control groups, which limits the evaluation of the effects of such interventions (Aylward et al. 2003). In the design phase of this thesis, for instance, the plan was that every workplace participating in Steps for Skills should have a comparison group. In reality, the comparison groups eventually turned into study groups as they also became involved in the learning intervention. Nielsen et al. (2006) shed a light on this fact that organizational interventions take place in complex environments that are nearly impossible to control, and that this control may not be even desirable. Another way to control would be to have knowledge about contextual and process factors, which often are omitted in intervention studies (Biron et al., 2010; Egan et al., 2009; Randall et al., 2005). The aim was to investigate what it is about the learning intervention that works, for whom, and under which conditions; this thesis therefore attempts to meet the demands of meaningful interpretation of the processes, for example, ‘what is taking place between the times when the data collection takes place’. Contextualization,
which has been requested in organizational studies (see, e.g., Rousseau and Freid, 2001), comes, for instance, naturally in this case study. An attempt to assess the right context (cf. O’Neill and Arendt, 2008), resulting in a deeper understanding of how the context influences the investigated variables, is also made. Still, there are difficulties inherent in making causal inferences from this thesis. The findings do not prove causation since a number of other factors also could have influenced them. For instance, the fact that differences in learning and career development for women and man have been found (Gustavsson & Eriksson, 2010) and that care work is a low-paid female-dominated profession and as such not expected to make significant contributions to knowledge (Westerberg, 2004), is not addressed in this thesis. Moreover, the impact of another large competence and quality development project, Stimulation grants (Stimulansmedel), is not taken into account. Some groups, or structures, created during Steps for skills could, however, be kept and develop because of Stimulation grants. Those groups, which did not follow traditional organization structures when working horizontally between organizational levels, may become important for the endurance of new infrastructures for learning in elderly care (see Westerberg, 2010)

**Implications**

The results presented in this thesis have some theoretical implications worth noting. In contrast to training research literature in which the usefulness of the concept of climate is neglected (see Salas and Cannon-Bowers, 2001), the present thesis adds to the perspective where learning climate and intervention are expected to interact in order to boost the benefits of training/learning. The program theory, that is, the logic of the intervention, was used to guide the formulation of the hypothesis to be tested, as recommended by von Thiele Schwarz and Hasson (2012), directing the efforts of this thesis towards focusing on the social aspects of learning and the individual’s perceptions of it. There is a diagnostic value in that those who experience a positive learning climate are also the ones estimated to have more skills, as well as the ones who consider themselves to use the new knowledge to a greater extent than those who believe their learning climate is less favourable. Research and organization might acknowledge already that organizations need competencies to function. Yet they must also be aware that the way the organization functions affects the learning opportunities of its employees (von Thiele Schwarz and Hasson, 2012). The relation between the perceived learning climate, resource adequacy, and workload also found in this thesis proves the importance of this interaction as well.
Competence development should be seen as change in behaviors and processes, and competence development plans should be based on analysis of the gaps between the current state and the goals of the organization (von Thiele Schwarz and Hasson, 2012). Although competence development is viewed as one way to create new infrastructures for continuous learning and quality improvement, this is not always the case. For example, a recent study of another comprehensive learning intervention within elderly care showed that despite some initial positive effects on attitudes and knowledge, very little change in practice was seen (Augustsson, Törnquist, and Hasson, 2012). Although employees did gain new knowledge and skills, they were still in the same environment, and there were no changes in the organizational structures and processes that would have been necessary for the program to lead to behavioural changes. However, results from a case study using an interactive research design indicate that work can be organized as a learning environment, facilitating (expansive) learning (Gustavsson, 2009). Changes take, often, time and the present thesis provides a coherent picture of how the relation between intervention and change may go through changes in interpretive repertoires, as a first step, before potential changes in behaviour occur. Still, knowledge or attitude change tells us too little about actual (future) changes in behaviour (Clarke, 2012).

Moreover, the results of this thesis may also have implications regarding how to study effects of interventions. Randomized control trials (RCT) and their quasi-experimental variations are considered the gold standard of such studies. In this thesis, however, integrating process evaluation with ‘effect’ evaluation has been a central part of the approach.

In The Conceptual Framework for Implementation Fidelity (Carroll et al., 2007; Hasson, 2010; Hasson, Blomberg, and Dunér, 2012) the content of the intervention is one of three key aspects included. The importance of the examination of the content of the improvement work, when using the breakthrough method in Steps for Skills, and its relation to an employee’s psychosocial learning environment is confirmed in this thesis.

A final theoretical implication of this thesis relates to intervention research and the striving towards separating implementation from intervention effects, and separating implementation from theory failure (Fixsen, Naoom, Blase, Friedman, and Wallace, 2005; Nielsen et al., 2006), which is related to a third potential factor, namely, working condition failure. Working condition failure could add a dimension highlighting that the learning climate can help or hinder the success of the utilization of newly acquired knowledge, even when an intervention is implemented and when the theoretical underpinnings do hold.

The results of this thesis may also have several practical implications. Intervention project planners should take the learning climate, and especially the social aspects and the potentials for collaboration and
development, into consideration. Also, what kind of leader role best fits the work groups and their social practices should be given attention. Leaders may, however, face a dilemma when expected to lead the development of employees and the environment, and at the same time increase the competitiveness of the organization (Gustavsson, 2009). The actual role that leaders have played in facilitating workplace learning is still unclear in this thesis, even though leadership commitment has been reported to be one of the most important aspects for intervention projects (Donabedian 1996, Gustafson et al. 2003, Mentes and Tripp-Reimer 2002). Still, first-line managers are responsible for the learning opportunities of the staff, and in this thesis it has been stressed that, as such, they should be able to evaluate the overall competences and skills of their subordinates in order to supply training when needed. In learning interventions like Steps for Skills, the kind of activities useful for employees should then be tailored through first-line managers’ and employees’ common involvement in social practices.

In this thesis, it is confirmed that context matters. Therefore, potential differences in the psychosocial learning environment between workplaces should also be taken into consideration, avoiding the concept that the goodness of fit of interventions is assumed to be strong when in fact it is not. As also pointed out by Hasson (2006), perhaps there are more specific interventions for each and every environment that could be considered in order to increase staff outcomes to improve the quality of elderly care.

In elderly care the work situation can change rapidly depending on the clients’ conditions, and at the same time, there are societal demands for organizational changes in order to meet future needs. Skills to effectively manage change therefore seem to be a necessary component in elderly care work, which in turn should increase its quality. Results from this thesis also suggest that communication strategies that support elderly autonomy could be the difference between success and failure of the interventions. It is also suggested that the most active action in increasing quality, through supporting autonomy, seems to be not in the level of the interaction between nursing staff and elderly. Changing rules, routines, and practice towards increasing the degree of choice offered in relation to aspects of elderly care, for instance, eating meals, should be part of quality improvement efforts. However, when aiming at increasing quality (of elderly care), it is crucial to start with defining quality.

For instance, one way of doing it is resolving, once for all, the dilemma between the promotion of autonomy and the need for minimizing risk. When the chosen principle is resolved, it must then permeate rules, routines, and practices. The fact that employees understand how they contribute to the organization’s strategic goals is more important than that they understand those goals per se (Boswell, 2006). Thus before launching an intervention, its program theory should be illuminated, aiming to ensure that the
employees’ knowledge and behaviours are aligned with the goals of the intervention. When operating in harmony towards a common goal, willingness to invest the time and organize the activity for such purposes may be optimal (Ramsten and Säljö, 2012). Knowing the core components of an intervention thus is a key to making sure that the intervention is implemented as intended.

Finally, there is also a need of linking the outcome of the learning intervention to necessary organizational changes (cf. Augustsson, Törnquist and Hasson, 2012), instead of viewing interventions as unrelated to the strategic goals of the organization. During the Steps for Skills project, there was a shift from mainly viewing staff competence as the way to assure elderly care quality to seeing elderly as co-producers of elderly care with conjoint responsibility (and power?), instead of as ‘recipients’. This shift – which may have to do with both an increased level of formal education and the Stimulation grants (National Board of Health and Welfare, 2007) – may give proof that some redefinition of quality is being made. Such ‘redefinitions’ are of major importance, since related organizational changes are required to achieve the organizational goals.

Concluding Remarks

Learning is today a natural element in the workplace. For this reason, this thesis aimed at increasing our understanding of the process and consequences of a learning intervention, focusing on social aspects of learning and the building of new infrastructures for learning in order to increase quality, despite changing conditions.

Overall, this thesis has identified the perceived learning climate as an important variable that could modify the consequences of a learning intervention, and vice versa. The results indicate that there are important areas for future research to further investigate, such as the integration of work and learning and the underlying mechanisms of the relation between organizational context and individual responses. It is also of great importance to better understand the impact of quality improvement work for the development of staff’s knowledge, skills, and attitudes required in supporting elderly autonomy. This can help organizations to better understand the conditions that nurture a good psychosocial learning environment for their workforce as well as autonomy for the elderly, contributing to the creation of environments that optimize the quality of work life for professionals and the quality of life for elderly.
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Appendix – Results of Factor Analysis

<table>
<thead>
<tr>
<th>Learning Climate Subscales and Items</th>
<th>Factor Loadings</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Learning Climate (α = .75)</strong></td>
<td></td>
</tr>
<tr>
<td>Decision Autonomy (α = .76)</td>
<td></td>
</tr>
<tr>
<td>I have freedom to decide how my work should be done.</td>
<td>.81</td>
</tr>
<tr>
<td>I have freedom to decide what should be done in my work.</td>
<td>.78</td>
</tr>
<tr>
<td>I can test new methods in work on my own initiative.</td>
<td>.74</td>
</tr>
<tr>
<td>Social support (α = .72)</td>
<td></td>
</tr>
<tr>
<td>When I need I get support and help from my colleagues.</td>
<td>.76</td>
</tr>
<tr>
<td>It is acceptable to have a bad day.</td>
<td>.75</td>
</tr>
<tr>
<td>I can count on help and support to learn from my mistakes at work</td>
<td>.67</td>
</tr>
<tr>
<td>Collaborative potential (α = .64)</td>
<td>.80</td>
</tr>
<tr>
<td>I and my workmates plan our work together.</td>
<td>.66</td>
</tr>
<tr>
<td>I and my workmates develop our work together.</td>
<td>.64</td>
</tr>
<tr>
<td>I often feel alone at work (reverse-coded).</td>
<td></td>
</tr>
<tr>
<td>Manager support (α = .88)</td>
<td>.89</td>
</tr>
<tr>
<td>If I need I can get help and support from my manager.</td>
<td>.87</td>
</tr>
<tr>
<td>It is easy to get in touch with my manager.</td>
<td>.80</td>
</tr>
<tr>
<td>My manager encourages me to take part in important decisions.</td>
<td>.79</td>
</tr>
<tr>
<td>Developmental potential (α = .71)</td>
<td>.76</td>
</tr>
<tr>
<td>I can use my skills and my abilities in work.</td>
<td>.63</td>
</tr>
<tr>
<td>I constantly develop in my work.</td>
<td></td>
</tr>
<tr>
<td>My work requires me to be creative.</td>
<td></td>
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