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Two Types of Learning Environment:
Enabling and Constraining
A Study of Care Work

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Abstract

Purpose – First, to elaborate on the notion of a learning environment based on an empirical study of care work. Second, to explore how aspects of a learning environment may differ between and within units in the same organization, and how to understand and explain such differences.

Methodology/approach – The study was based on a multiple case-study design including four departments within two care units. Data were collected through direct observation of working conditions and work practices as well as semi-structured interviews with all care-workers within the two units (29 persons), and with the head and deputy head for each of the two units.

Findings - It was possible to distinguish between two qualitatively different patterns of working conditions and practices within the four teams. These patterns of practice were interpreted as representing an enabling and a constraining type of learning environment as these concepts were defined in this study. The evidence suggest that the emergence of an enabling learning environment was an outcome of a dynamic interplay between a number of factors that had the character of a virtuous circle.

Originality/value – The article adds to previous research through a distinction between two types of learning environment (enabling and constraining), and by linking these two types of learning environment to different conceptions of learning and to different working conditions and practices.

Keywords – learning environment, adaptive learning, developmental learning, learning readiness, working conditions, care work

Paper type – Research paper.

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Introduction

Over the past 15 – 20 years, public sector organizations in most Western countries have undergone substantial restructuring. Notions such as competition and user-orientation have been central to much of this reform work, boosting the emphasis on service and efficiency in public services. However, the emphasize on both better-quality services and increased efficiency appears to put contradictory requirements on managers and workers in many public sector organizations (Jansson and Forssell, 1995; Rainbird, Munro & Holly, 2004). Furthermore, in many instances increased service quality appear to mean increased standardisation and delivery to specification rather than customisation and user-orientation of services.

Considering specifically the case of Sweden, many municipalities in the 1990s, in an effort to meet demands for both improved efficiency and more ‘user-oriented’ activities, introduced market-oriented models of governance based on a distinction between purchasers and providers of services known as a ‘purchaser-provider’ model of governance (Blom, 1998). During the same period, Swedish municipalities assumed overall responsibility for long-term care services, care of the elderly and people with disabilities — functions that previously were part of the public health system (Swedish National Board of Health and Welfare, 1996).

Taken together, these organizational changes have meant not only increased demands for new or modified skills (competencies) and especially for more wide-ranging expertise – including for example medical knowledge – but also an increase in the care burden and thereby an intensification of care work. In spite of these new demands, there has been little or no investment in measures to meet the new skill requirements through in-service training or

other measures for competence development. The underlying implicit assumption appears rather to be that the new skill requirements are to be met through learning in work by individual care workers and teams. If this is for some reasons not possible, we would expect to find signs of contradictions between the increasing skill demands and the prevailing organization of care work.

Given these circumstances, our overall research question would be: To what extent are prevailing working conditions likely to provide a learning environment conducive for learning and competence development in daily work? This question is addressed through a case study of care work in the context of a Swedish municipality. Theoretically, the study will use the notion of a learning environment (Billett, 2001; Ellström, 1997; 2001; Fuller and Unwin, 2004) as a point of departure. More specifically, the study has the following two aims. First, to elaborate on the notion of a learning environment based on an empirical study of care work. Second, to explore how aspects of a learning environment may differ between and within organizational units in the same municipality, and how to understand and explain such differences.

Conceptual Framework

The focus of this study concerns conditions for informal learning in care work. The focus is on learning as an integral part of practical work and in interaction with co-workers in various work situations. On the basis of previous research, two types of learning may be distinguished. One has as its focus the mastery of certain specific tasks, problems, methods or ways of working – for example learning a particular way of working in accordance with prevailing routines in an organization. This learning, which may be termed ‘adaptive’ or ‘reproductive’ learning (Ellström, 2001; 2006 a; Engeström, 1987), has its role primarily in the formation of competencies for handling routine problems that recur frequently. The second type of learning, which may be termed ‘innovative’ (Engeström, 1999) or

‘developmental’ learning (Ellström, 2001; 2006 a), occurs when individuals or groups within an organization begin to question established definitions of the problems and tasks at hand, and act to develop new ways of coping with the duties and often complex problems involved in the job.

We assume here that both these modes of learning are needed in working life as well as in everyday life, and that they should ideally be viewed as complementary. Considering the complex character of much care work, previous research (e.g. Szebehely, 1995) indicates the importance of being able to deal alternately with familiar, routine problems and new problem situations or unexpected emergencies. In this perspective, being able to alternate between an adaptive and a developmental mode of learning is an important skill, and one that this type of work appears to share with many other occupations (Barley and Kunda, 2001; Brown and Duguid, 1991).

The question, then, is to what extent working conditions in the two cases included in this study are likely to promote a reasonable balance between reproductive and developmental learning in work. Or whether prevailing working conditions tend to promote reproductive learning at the expense of developmental learning. This could be the case if, for example, there is too strong an emphasis on standardisation of work practices and compliance with existing routines and specifications, something which may be expected to drive out problem solving, reflection, and, thereby, a developmental type of learning.

Enabling and Constraining Learning Environments

As assumed here, the potentials for learning in work to a large extent depend on to what extent the workplace is designed not only for the production of certain goods or services (e.g. care), but also for supporting learning and competence development (Ellström, 2006 a; Shani and Docherty, 2003). Following Billett (2001), a workplace is designed for learning – has a

learning readiness – to the extent that it affords opportunities for individuals to engage in and be supported in learning at work.

How, then, can we characterize the learning readiness of a workplace? One way to do this, is by using the concept of a learning environment (Billett, 2001; Ellström, 1997; 2001; Fuller and Unwin, 2004; cf. the partially parallel concept of learning culture as used by e.g. Dymock, 2003; Watkins and Marsick, 2003). As used here, the concept of learning environment refers to the conditions and practices in an organization that are likely to facilitate or hinder learning in and through work at a particular workplace. More specifically, we will make a distinction between two types of learning environment: enabling and constraining. By an enabling learning environment we refer to working conditions and practices that are likely to promote a balance between reproductive and developmental learning, that is, an environment where individuals are able to alternate between these two modes of learning. In contrast, a constraining learning environment refers to conditions and practices that are likely to constrain both reproductive and developmental learning, or to promote reproductive learning at the expense of developmental learning.

When we talk about two types of learning environments we consider them as ideal typic constructions, that is, as idealized forms that constitute the two extremes of a continuum of learning environments. In practice, we assume that a certain learning environment may include conditions that are enabling for learning as well as conditions that may constrain learning. Thus, in practice many learning environments are presumably of a mixed type.

Whether or not a certain situation should be considered as enabling or constraining is assumed to depend, not only or primarily on its objective characteristics, but rather on how these characteristics are subjectively evaluated and dealt with by the learning subject. Thus, in line with others using the concept of a learning environment (e.g. Billet, 1998; 2001;

Ellström, 2001; Fuller & Unwin, 2004) it is necessary to distinguish between and deal with the relations between structural and subjective aspects of a learning environment.

Structural and Subjective Aspects of a Learning Environment

By structural aspects we mean ‘objective’ aspects of a learning environment, that is, aspects that we are able to observe and assess independently of individual subjectivity. In Billett’s (2001) terminology, these structural aspects include what he refers to as the opportunities for learning afforded by a workplace. According to our view, structural aspects (‘affordances’) include different working conditions and practices of cultural, material and/or social character (e.g. division of labour, task characteristics, tools, procedures, prevailing norms and values, cf. Ellström, 2001) that facilitate or hinder learning.

In contrast to these structural aspects of a learning environment, the subjective aspects refer to how the structural aspects are experienced, understood and evaluated by the individual (or the work group), that is, by the learning subject. These aspects are assumed to influence the capacity to identify and take advantage of the structural working conditions (Ellström, 2001) or, to use Billett’s words (2001), the extent to which individuals ‘elect to engage’ (p. 210) in the learning opportunities afforded by the workplace. More specifically, such subjective factors may include not only individual knowledge and understanding of learning opportunities and the task at hand, but also skills to engage in different activities, previous experiences, self-confidence and motivation. As argued by Ellström (2001), subjective factors of this kind constitute important components of the learning readiness of an individual (or group).

Individual and Organizational Readiness for Learning

The concept of individual learning readiness (Ellström, 2001) may be viewed as a counterpart to the organizational concept of workplace readiness proposed by Billett (2001). We suggest that these two types of readiness for learning – individual and organizational readiness – are

viewed as complementary, and that a learning environment could be characterized in terms of its level of individual and organizational readiness for learning. Using these concepts, an enabling and a constraining learning environment may be defined not only – as above – in terms of the types of learning (reproductive and/or developmental) that it promotes, but also in terms of its degree of learning readiness (individual and/or organizational).

A Model of Analysis

How, then, can we characterize a learning environment and its resources for promoting learning in work? To what extent can the home help services be characterized as an enabling or a constraining learning environment? To study the concept of learning environment empirically, we distinguish four groups of factors that seem essential to an understanding of the home help service as a learning environment (see Figure 1 below). It should be noted that the factors included in Figure 1 are not assumed to be causally related. Rather, these factors are assumed to operationally define the concept of learning environment, and should thus be viewed as constitutive dimensions of this concepts. In order to indicate this non-causal character of the relations between the factors in Figure 1, they are depicted as lines rather than as arrows.

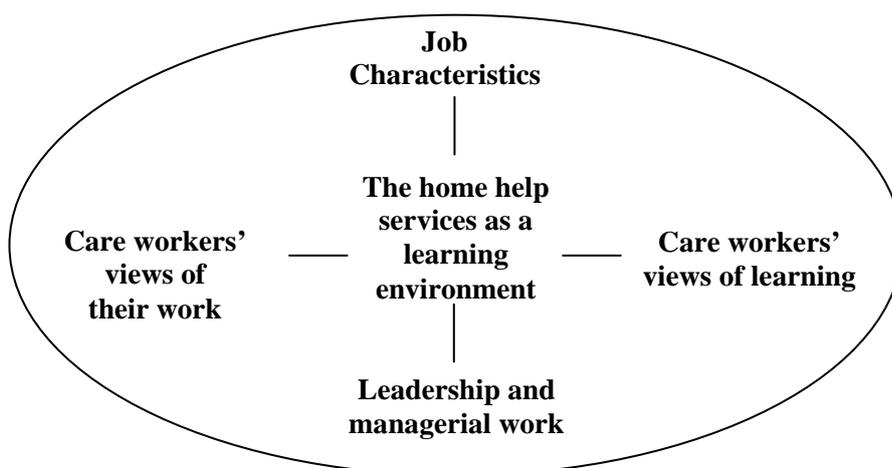


Figure 1 Factors guiding the description and analysis of the home help services as a learning environment

The factors called *job characteristics* refer to structural aspects of the learning environment. It is assumed that job characteristics relating to work content, skills requirements, and forms of participation in planning and organization of the job are significant in facilitating or constraining learning (e.g. Ellström, 2001; Kohn and Schooler, 1983; Marsick and Watkins, 1987); for instance, a job requiring high skills probably affords richer opportunities for learning than one with lower skills requirements.

The group of factors labelled *care workers' views of their jobs* refers to subjective aspects of the learning environment. Specifically, they refer to how the caring work is experienced, in terms of both content and significance to themselves and to others who are directly or indirectly affected, including of course those receiving care. This group of factors also includes care workers' perceptions of their scope of action, that is, their experienced possibilities of influencing the way the work is planned and carried out. The underlying assumption is that these experiences influence the ways the care workers engage in work activities and view them as possible sources of learning (see Antonovsky, 1993; Cook-Gumperz and Hanna, 1997; Marsick and Watkins, 1987).

For the group of factors termed *care workers' views of learning*, we assumed that these are likely to affect the care workers' propensity to engage in and take advantage of the opportunities for learning available within the framework of their jobs (cf. Schommer, 1998). We focus on care workers' views of learning in a broad sense, including how they become proficient at their jobs, their experienced scope for sharing knowledge and experience with colleagues, and experienced opportunities and obstacles for learning in the course of their practical duties.

Finally, the factors summarized under the label *leadership and managerial work* relate to managers' perceptions of their own leadership and work practices, and their duties as leaders, including their importance in encouraging learning and development in the home help

service. The underlying assumption was that managers, through the way they direct the day-to-day work, could create opportunities or obstacles for learning in the organization (e.g. Goldsmith, 1996; Storey and Salaman, 2005).

Method

The study was carried out as a case study of two service units (A and B) and four teams of care workers in the home help division of a Swedish municipality. The population of the municipality at the time of the study was approximately 150 000. The two cases were selected through theoretical sampling (Strauss and Corbin, 1990); specifically, the selection was made on the basis of the socioeconomic status of the municipal area in which the service unit was located. This variable was assumed to be significant for this study because, based on previous research (e.g. Szebehely, 1995), socioeconomic conditions are likely to be related to the needs of the care recipients, and thereby to the work content and demands on the care workers. As is clarified below, these factors were assumed to significantly shape the learning environment of a care unit. This assumption was in fact later also corroborated by the results of this study. Further information about the two units, and the criteria for selecting them, is given below.

The Two Cases

Unit A is located in a central area of the city, and provides services in a district consisting mainly of elderly women requiring home help. From a socioeconomic point of view, this area may be regarded as high socioeconomic status. Unit B is in a peripheral area, and provides services in a district that, socially, faces greater problems. In socioeconomic terms, this area can be regarded as low status, with a wide variation in care recipients' needs: there are, for example, young people who need home help due to alcoholism or psychiatric problems, and families in need of support and help due to their social situation. However, the majority of care recipients in this area too are elderly people.

The study comprises a total of four teams of care workers, two in each service unit. In unit A there was an 'in-house team' of ten care workers (caring for people living in the service unit) and an 'outreach team' of seven care workers (working with care recipients living at home in the surrounding area). The average ages of the staff in these two teams were 46 and 47 respectively. Most of the home-helpers had a relatively long experience of work in elderly care. The two teams differed in educational background. In the in-house team, there were three care workers with basic medical training as assistant nurses. The others in this team had a general education to upper-secondary level (two persons) or training courses lasting ten or 20 weeks (five persons). In the outreach team there was only one person who was an assistant nurse. Most of the care workers in this team had completed shorter training courses lasting ten or 20 weeks. Unit A was managed by a head manager and a deputy manager, both of whom had been employed in a managerial capacity for a long period, 20 and 15 years respectively. Both managers had academic degrees: the unit head with a degree in social studies, and the deputy head a nursing degree.

At service unit B, each team comprised six persons. Both teams worked with care recipients living in sections of the service unit as well as with care recipients in the surrounding area. There was an appreciable difference in the composition of the two teams in terms of age as well as education. In Team I, the average age was 28 and the majority were trained in social services, a two-year education at upper-secondary level. All members of the team had relatively long experience of work in elderly care. In Team II, the average age was 54 and the training of all of the care workers was limited to courses lasting ten or 20 weeks. Most in this group also had long experience of work in elderly care.

Like unit A also unit B was managed by a head manager and a deputy manager, both persons with long experience of care provision in elderly care: they had been employed as managers for 13 years and were both assistant nurses with training in social care services.

Data Collection and Analysis

Data were collected through direct observation of working conditions and work practices as well as interviews. In the first phase of data collection, two of the researchers visited each of the two service units over the course of a day. In this first visit, information was collected on the organization of the service unit, the composition of the staff group and group of care recipients, the meeting structure, and the overall planning and organization of work within the unit. When introducing the project in connection with the first visit, the managers and the care workers were informed about the aims of the project, the forms and methods of data collection as well as the conditions of their participation, including agreements about confidentiality and anonymity.

The main focus during this initial visit was to collect data on work practices and the specific tasks performed by the care workers. To that end the researchers shadowed two care workers at each service unit over the course of one day and took notes about events, actions and interactions. During this ‘shadowing’, there were ample opportunities for informal interviews about, for example, working conditions and the tasks that were carried out.

In the second phase of the data collection process interviews were conducted with all care workers at the two service units, in total 29 persons. In addition, the head and deputy head at each unit was interviewed. Each interview took between one and a half and two hours, and was conducted in a separate room at the workplace. The interviews were tape-recorded and later transcribed. The fact that the interviews took place on the premises of the two units also meant further opportunities for observation and informal talk. The interviews were semi-structured and conducted according to an interview guide comprising a number of open-ended questions relating to the four groups of factors included in the model of analysis above (see Figure 1).

In the subsequent analysis of the data, the team was used as the unit of analysis within the framework of a multiple case study design (Yin, 1994). The content analysis of the transcribed interviews was guided by the factors included in the model of analysis according to principles suggested by Miles & Huberman (1994). For each group of factors in the model, the analysis focused on identifying and defining theoretically meaningful patterns of data. The analysis was first made on the basis of data from each team, i.e. a within-case analysis. In a second stage, the result of this analysis formed the basis for an analysis across the four teams, i.e. a between-case analysis (Yin, 1994). In the following, we have chosen to focus primarily on the results of the between-case analysis. This choice follows from our theoretical knowledge interest in identifying and exploring empirical relationships and indicators related to the distinction between the two types of learning environment. Given this knowledge interest, a theory-guided cross-case analysis makes it easier to discern empirical relationships that would be difficult or impossible to discover if we relied primarily on the data from a within-case analysis of one or more cases. In practice, this often means a trade-off between telling a richer and more complex story based on data from the within-case analyses, and the possibility to make theoretical inferences and analytic generalizations (Yin, 1994).

Two Patterns of Practices – Two Learning Environments

Based on the cross-case analysis, it was possible to discern two qualitatively different patterns of working conditions and practices in the four teams. As argued below, these two patterns may be interpreted as representing an enabling and a constraining type of learning environment in accordance with the theoretical definitions given above. Furthermore, it was possible to differentiate between the two patterns of practice in terms of six aspects. These aspects emerged from the content analysis through an iterative process of analysis guided by the conceptual model presented in Figure 1. The two patterns of practice (learning environments) and their differentiating characteristics are shown in Table 1 below.

Considering the empirical prevalence of the two types of learning environment in relation to the two service units and four teams, our analysis showed that only one of the four teams – one of the two teams in service unit A – exhibited working conditions and practices that may be characterized as an enabling learning environment. The other team in unit A showed a more complex picture, exhibiting features of both an enabling and a constraining environment, i.e. a mixed learning environment. Service unit B was more homogeneous in that both teams in this unit were dominated by a constraining learning environment.

Table 1. Two Types of Learning Environment: Enabling and Constraining

Aspect	An Enabling Learning Environment	A Constraining Learning Environment
Task orientation	Orientation towards the needs of the care recipients and a focus on tasks derived from those need ('professional orientation')	Present-orientation and focus on the care workers' own work situation ('traditional housekeeping orientation')
Perceived work content	Rehabilitation and treatment tasks in addition to practical and social tasks	Focus on practical and social tasks
Planning and organization of work	Emphasis on both formal and informal meetings (e.g. lunches, coffee breaks) as arenas for planning and information exchange	Few formal meetings for planning and information exchange, emphasis on informal arenas
Leadership and managerial work	High accessibility	Low accessibility
Organizational readiness for learning	Emphasis on formal training as well as informal learning through work. Managers initiate learning activities based on assessment of the care workers needs.	Emphasis on informal learning through work rather than through formal training. Few if any management initiatives to provide learning activities.
Individual readiness for learning	Care workers showed an active engagement in specific learning activities	Care workers showed little or no active engagement in specific learning activities

In the following two sections, we will use available data on working conditions and practices from the within-case analyses to highlight different features of enabling and constraining learning environments shown in Table 1.

Features of an Enabling Learning Environment

A significant feature of teams with this learning environment was an orientation towards the needs of the care recipients and a focus on tasks derived from these needs. Tasks related to rehabilitation and treatment of the care recipients rather than merely practical chores (such as cleaning, laundry, shopping) or social tasks were emphasized. As stated by one of the care workers in the in-house team of unit A, one important task is:

... to help the elderly to help themselves..., for example to allow them to participate in preparing breakfast.

In line with this, the team also endeavoured to plan the work so that – as far as possible – the same care workers could attend to the same care recipients in order to increase their sense of continuity. As expressed by another care worker in the same team:

Perhaps the elderly feel a little more secure if they recognize the person that comes to assist them.

In Waerness's terms (1983), the care workers showed a professional orientation in the sense that they endeavoured to bring the work into line with a 'real' job, and not one equating to the performance of traditional housekeeping chores.

Another significant feature of this learning environment was an emphasis on the planning and organization of the care work. This was indicated, among other things, by an emphasis on the importance of formal meetings:

The daily morning meetings are important as an arena for discussing various problems relating to the care recipients (care worker in the in-house team).

However, the work planning was not only carried out through formal meetings, but also informally during coffee breaks and lunches. As stated by another care worker in unit A:

We have daily contact and communication with the managers – they eat lunch together with us.

Managerial work was characterized by a relatively high degree of accessibility, and played an important role as discussion partners and as providers of cognitive and emotional support to the care workers in different demanding work situations:

We walk into the managers' office when we need to talk to them. They are available in most cases (care worker at unit A).

There was a relatively pronounced readiness for learning, both at the organizational and the individual level. Managers initiated various forms of formal training, for example courses on certain diseases (e.g. stroke, dementia), communication and ethics. These initiatives were based on a formal assessment of needs for competence development among the care workers. The care workers themselves emphasized the importance of formal in-service training, but also learning in and through their day-to-day work:

It is important for me to be able develop in my job. You need in-service training because there are new things that are becoming more and more part of the work (care worker in the in-house team of unit A).

I have learned a lot through practical experience. You learn to understand the whole person, something you can never learn from a book (care worker in the in-house team of unit A).

With respect to the espoused orientation towards learning, many of the care workers stated that they acquired new knowledge about their work by taking their own initiatives. As expressed by one care worker:

You have to find out a lot of things yourself, for example finding information about possible side effects of different medicines (care worker in the in-house team at unit A).

A large number of specific examples were also given, including formal training courses, television programmes, and articles in newspapers and journals. Thus, the care workers showed an active engagement in different types of learning activities.

Features of a Constraining Learning Environment

The teams that exhibited features of a constraining learning environment were characterized by a relatively strong orientation towards the care workers' own work situation and working

hours. The planning and carrying out of different tasks was often governed by perceived time constraints and other constraints relating to the work situation of the care workers rather than to the situation of the care recipients and their needs for continuity. As one care worker expressed it:

We rotate between the care recipients in order to avoid a situation where we do the same things for the same people almost every day. Even if that would be good for the care recipients, it would be too repetitive and tedious for me (care worker in the outreach team at unit A).

If there is a lack of time one day, I avoid visiting a care recipient who likes me a lot, because then it would take an enormous amount of time, and we would be behind schedule for the rest of the day. In such a situation we usually send someone else from the team in order to gain time (care worker at unit B).

In line with this, there was also an emphasis on what was felt to be an equitable allocation of 'problematic' care recipients. Furthermore, there was a focus on the current situation 'here and now'. However, this here-and-now orientation was often combined with responsiveness to emerging problems and an emphasis on independence and flexibility (cf. the traditional housekeeping orientation reported by Szebehely, 1995). The content of the care work in these teams was primarily comprised of practical chores (such as cleaning, laundry, shopping) as well as social aspects of care (e.g. sitting and talking to the care recipients, outdoor activities and so on).

There were few formal meetings for planning and organization of the care work; rather coffee breaks and the like were used as occasions for exchanging information concerning the work and the care recipients.

We use the coffee breaks to talk about and plan the work (care worker at unit B).

The management was characterized by a relatively low degree of accessibility, and – possibly as a consequence of this – the care workers to a large extent took their own decisions about their work, without managerial involvement:

We have to manage most things ourselves during the day. The manager makes her round once a day in the morning, and checks if things are OK (care worker at unit B).

However, this independence may also be understood in the perspective of the traditional housekeeping orientation mentioned above – an orientation characterized by a high degree of self-governance and independence.

With respect to individual readiness for learning, most care workers emphasized in general terms the importance of learning in and through daily work. However, only a few of the care workers could give specific examples of learning in work, or examples of situations where they had acquired new knowledge about their work through their own initiative outside the workplace. With respect to training, there was a widespread attitude among the care workers that learning through participation in formal in-service training was relatively unimportant in the provision of care. As one care worker expressed:

It is important to learn more about elderly people, I guess; to learn about their illnesses, medicines and so on...but I don't think I would do a better job if I learnt more about such things by attending a course (care worker within the outreach team at unit A).

Understanding Observed Differences

As already mentioned, both teams in service unit B were dominated by a constraining learning environment. In unit A, an enabling learning environment predominated in one of the two teams ('the in-house team'). In the other team ('the outreach team'), however, there were features of both types of learning environment. The question, then, is how we can understand and explain these differences? Are there other differences between the two units and/or the four teams that may explain this observation?

One key difference between the two units that should be considered is the differing socioeconomic status of the areas, which was also the main criterion in the selection of cases for this study. As was expected from previous research (Szebehely, 1995), the care workers in the two units experienced differing demands from the care recipients. More specifically,

the care workers at unit A experienced that the care recipients' demands for services were quite high – so high that the staff often felt 'inadequate'. The care workers at unit B did not report a corresponding situation. These differences in the level of demand can be expected to affect the task orientation and work content of the two units, and thereby the learning environment. However, differences in the composition of the care recipient group cannot explain the differences in learning environment between the two teams *within* unit A. How, then, can we interpret this latter difference?

A factor that may contribute to an understanding of the emergence of different learning environments in the two teams within unit A is the level of vocational education and training of the care workers. The in-house team at unit A included more care workers with healthcare training at upper-secondary level than the other work teams. The training received by the other work teams (the outreach team at unit A and the two work teams at unit B) was either shorter courses (mainly the older members of staff) or more general courses focusing on social services (younger care workers). Considering these differences in education and training, a possible interpretation of the emergence of an enabling learning environment within one of the teams at unit A would be that it was facilitated by a combination of: (a) high care demands made by the care recipients, coupled with the fact that (b) the care workers within this team had on average a higher level of formal education and training compared to the other teams, and, thereby, probably also a higher preparedness for understanding and handling these demands as well as a higher readiness for learning in relation to the opportunities offered by the high care demands.

Conclusions

The aim of this article was twofold. First, to elaborate on the notion of a learning environment on the basis of an empirical study of care work. Second, to explore how aspects

of a learning environment may differ between and within organizational units in the same municipality, and how to understand and explain such differences.

What conclusions, then, can be drawn regarding these issues? Considering the first aim, it seems safe to conclude that the proposed distinction between two types of learning environment, labelled enabling and constraining, is supported by the data presented in this study. As shown above, this distinction appears to be a useful conceptual tool for interpreting observed patterns of working conditions and practices in the four teams of care workers. More specifically, the relatively high degree of both organizational and individual readiness for learning that characterized service unit A, and in particular the in-house team, corresponds to what could be expected according to the definition of an enabling learning environment given above. Likewise, the more limited readiness for learning – organizational as well as individual – found in both teams in service unit B is in line with the proposed characteristics of a constraining learning environment.

The concepts of enabling and constraining learning environments have through this study been defined and analyzed in terms of six empirical indicators, termed task orientation, perceived work content, planning and organization of work, leadership and managerial work, and organizational and individual readiness for learning. Determining whether or not these indicators are valid can only be achieved through further empirical studies. However, as noted above, these indicators are reasonably consistent with previous theoretical and empirical work on learning environments in different types of organizations (e.g. Billett, 2004; Ellström, 1997; 2001; 2006 b; Fuller and Unwin, 2004; Kock, Gill and Ellström, 2006). Furthermore, the empirical indicators proposed here are also consistent at a general level with studies on the related concept of learning cultures (e.g. Dymock, 2003; Watkins and Marsick, 2003). Taken together, the consistency with previous research attests to the validity of the

proposed definitions and empirical indicators of what constitutes an enabling and a constraining learning environment.

The second aim of this study was to explore and try to understand and explain differences in learning environment between and within service units. The argument advanced above was that the differences between the two units could be understood in terms of different contextual conditions related to the composition of the group of care recipients and their different levels of demand for home help services. However, in order to also account for the differences between the two teams *within* unit A, this explanation in terms of contextual conditions was supplemented by an explanation in terms of the education and training of the care workers, and, indirectly, their individual readiness for learning.

To conclude, the evidence suggest that the emergence of an enabling learning environment is an outcome of a dynamic interplay between user demands, work content, the educational background of the care workers, their task orientation, management support and learning readiness. The complex interplay between these factors appears to have the character of a *virtuous circle*, where the different factors reinforce each other positively.

An important practical implication of these results is that learning in work does not occur in some sense automatically. On the contrary, the results of this study indicate that more qualified learning at work – learning beyond simple adaptation – presupposes both a workplace designed to promote learning and employees with sufficient knowledge and skills to be able to identify and make sense of the opportunities for learning encountered at work. In other words, the results lend support to the idea that an enabling learning environment presupposes both an organizational and an individual readiness for learning. Considering the important role of first line managers for supporting care worker's learning in work, a logical point to start would be to initiate programmes for leadership development with a main focus on how to organize and lead workplace learning.

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