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Working and ageing

Emerging theories and empirical perspectives

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Foreword

The economic and social consequences of population-ageing in Europe present significant challenges for the coming decades. Although ageing is relatively easy to forecast, the topic did not receive much attention from researchers and policy-makers until the 1990s. When population forecasts started to reveal substantial shifts in the composition of the population, with fewer younger people and large increases in the proportion of older people, many countries realised that, without appropriate action, the sustainability of social security and pension systems would be at stake and labour-market shortages could emerge. National and European policies increasingly started to focus on raising the labour-market participation of ageing people, restricting or abandoning possibilities for early labour-market exit, and increasing the age at which people are eligible for pensions.

Increasing concerns about the financial and economic consequences of widespread population ageing have also ignited discussions on the implications of longer working lives in terms of learning. However, although workplace dynamics affect all workers, lifelong learning remains largely focused on younger and middle-aged workers. While overall participation in lifelong learning appears to be increasing, a persistent gap between younger and older workers remains. Conflicting evidence means it is difficult to assess what is responsible for this pattern. Some studies have suggested that employers value the experience ageing workers bring to their jobs and see their stronger commitment as a positive factor. Other research has found that stereotyping remains a core factor hampering older people's sustainable labour-market participation and access to training. It is crucial to note that research has not found any consistent relationship between age and overall work performance. Evidence from classical studies from the medical field indicating that work performance capacities decline with age, only relates to some physical abilities.

In recent years, Cedefop has played a crucial role in developing and gathering evidence on lifelong learning for ageing workers. Several reports convey the strong message that the interrelated topics of lifelong learning and ageing workers have developed as separate discourses; training and learning approaches that work for younger generations are not necessarily effective for people in the last stage of their career. Currently, the traditional focus on formal training is making way for the concept of age-friendly work-

places, which combine formal, non-formal and informal learning to encourage competence development in organisations that value and support learning for workers of all ages. Across and within different disciplines, recent debates reflect the shift from discouraging older workers' activity towards retaining their employability, their knowledge and their wisdom.

By reviewing the various strands in current research literature and presenting new empirical findings, the contributions in this volume reflect the ways in which issues relating to retirement and an ageing workforce are at the intersection of key social changes over the past decades. The volume continues Cedefop's commitment to work on ageing workers by digging deeper into the question of what factors enable or hamper people to continue working at advanced age. It is based on the contributions for a workshop organised by Cedefop in September 2008; it aims to provide sound and accessible evidence and to suggest innovative ways of thinking to support active ageing policies. At the workshop, international scholars from around the world examined core issues related to ageing workers and retirement, presenting the main problems, trends and challenges. The book is divided into four parts. By examining emerging career development concepts and learning frameworks for ageing workers, the first part offers a broad overview of the subject matter. The second part provides perspectives from comparative cross-national research on ageing, learning and working in European countries. The third part identifies ways of breaking traditional patterns to extend working lives and to assist working past retirement age. In the final part, the role of guidance and employer-supported initiatives in active ageing is considered.

This publication conveys two crucial messages. First, successful active ageing requires commitment and involvement from ageing workers and employers in a context that supports learning and recognises the specific needs ageing workers have. Second, sustainable labour-market participation at advanced age cannot be achieved without sound understanding of ageing, working and learning and the interconnections between these processes. We feel that the insights presented in this volume can encourage evidence-based debates on how to deal with the challenges that population ageing presents. Through our continued involvement in research on ageing and work, Cedefop is committed to supporting active ageing policies in the European Union and its Member States in the coming years.

Aviana Bulgarelli
Cedefop Director

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PART I

Emerging career development concepts and learning frameworks for ageing workers

Development of older workers: revisiting policies
Jo Thijssen and Tonette Rocco

Lifelong learning for ageing workers to sustain employability and develop personality
Sandra Bohlinger and Jasper van Loo

A literature review basis for considering a theoretical framework on older workers' learning
Birgit Luger and Regina Mulder

How silver learners can be silver workers: individual differences in the relationship between age and learning/work performance
Julia Krämer and Koen DePryck

1. Development of older workers: revisiting policies

Jo Thijssen and Tonette Rocco

ABSTRACT

Career development, and lifetime development in general, is often represented as an arch: a line going up then down, representing stereotypes of the younger promising stage and the older deteriorating stage. Ideas about the peak of this curve differ from 35 to 55 years old. Paintings, prints and models represent the second half of a life or a career as the decline and fall of human capabilities. The message is clear and simple: these people are over the hill. Underlying beliefs on the decline in abilities for everybody of a certain age, physically and mentally, are old and, up to now, very common among human resource managers. These beliefs in the irreversible and unavoidable diminishing of human abilities in the second half of a career were the starting point for a dramatic change in the labour participation of older workers during the 1980s, when unemployment was a common phenomenon in western countries. Replacement policy was prevalent: deteriorating older workers were replaced by promising younger workers. Demographic developments over the last decade have offered an opportunity for critical reflections on these beliefs and for research on alternative theoretical and practical perspectives. As a result, stereotypes seem to change, at least among a vanguard of scientists and policy-makers. We conclude that beliefs on differences between younger promising human assets and older deteriorating human assets are, themselves, over the hill. This chapter offers an outline of older worker issues divided into three parts: national topics from European and American perspectives, organisational and managerial perspectives, and individual perspectives of older workers.

1.1 Introduction

The German statesman Otto von Bismarck is seen as the first person introducing – as early as 1889 – a form of State pension for older workers. He cannot be blamed for being wasteful of government funds or of being a humanitarian politician, taking this initiative for political reasons: he wanted to take the wind out of the sails of the socialists within parliament whom he hated. Funding early retirement at the age of 65 did not present a problem

in an era during which the average life expectancy was approximately 45 years. Initially von Bismarck considered a lower retirement age but economic analysis suggested that a lower age was unrealistic in view of the ratio between workers and non-workers in the labour market (Börsch-Supan and Miegel, 2001; Kunisch, 1992).

Otto von Bismarck's decision to make 65 the standard retirement age became the common model. Since this decision, a lot has changed in respect to life expectancy, the changing proportions of people alive in different generations, advances in medicine that allow longer and more productive lives (Albrecht and Bury, 2001), the tradition of working until or retiring at the age of 65 and organisations' use of early retirement incentives for restructuring purposes (Feldman, 2003). These changes and traditions, and others, encourage reflections on new directions for older workers.

The purpose of this chapter is to provide an overview of issues at macro, meso, and micro levels from both European and US perspectives. We offer a description of some important new directions: developments at macro level (national and international) in Section 1.2, at meso level (organisational and managerial) in Section 1.3, and at micro level (older workers from individual perspective) in Section 1.4. Finally, in Section 1.5, we summarise major conclusions.

1.2. Workforce participation in western countries: heading for a change

In many western countries a huge number of older workers retired early during the final decades of the last century. The prime cause of this phenomenon was the turbulent restructuring of many economic sectors. In the US cohorts of men retired, due in part to early retirement incentives, from the 1960s to the 1980s when early or on-time retirements of men levelled off (Anderson et al., 1994). Europe witnessed a similar development, especially during the 1970s and 1980s (Kohli et al., 1991). In many organisations the average age of the workforce has decreased under this welcome form of staff 'replacement'. This replacement policy implied early retirement of older workers with fewer younger workers being hired to replace them. In many organisations this restructuring gave the impression of creating efficient operations while downsizing. Without ignoring relative retirement differences between western countries and regions, between Europe and North America for instance, scientific and managerial publications endorse one major conclusion: a

dramatic reduction in workforce participation of older workers (Kaufman, 1995; Kohli et al., 1991; Munk, 1999).

The result of the increasing ageing and dejuvenation of the population is that western governments now see early retirement as a hot issue, regardless of whether or not these governments have to a greater (Belgium and the Netherlands) or lesser extent (the US) been funding early retirement. Nationally and internationally, people are thinking of new ways and means to promote, directly or indirectly, working longer (Ilmarinen, 2002; OECD, 2001; Poulos and Smith Nightingale, 1997).

The perspective of older workers is changing to: active ageing (Walker, 1999), bridging employment (Shultz, 2003), shadow careers (Geer, 1997), second careers (AARP, 1992) and becoming entrepreneurs (Minerd, 1999). For each of these perspectives older workers make an explicit choice to remain within and not outside working life. Decisions made by the worker and employer impact the decisions to remain, retrain, or redesign work (Rocco et al., 2003). Traditionally, the early retirement choice was considered attractive by workers and organisations with many people demonstrating 'anticipating behaviour' (no career plans, no additional training, etc.). The tradition of early retirement does not make an active ageing policy easy to encourage. Organisations are more likely to aid active ageing by creating policies for retired workers to return or remain in redesigned positions according to worker rank, education, and degree of expertise and the worker is more likely to remain for the enjoyment found in working (Stein et al., 2000).

Although one cannot expect an immediate enthusiasm from older workers for suggestions to work longer to help the organisation, the shortage of younger workers has made management and their organisations reconsider the wisdom of not continuing to use the expertise provided by older workers. Most companies realise that, in the long term, the pool of eligible workers is decreasing as a result of ageing. Even as they embrace the concept of working longer early retirement will sometimes be considered as an attractive short-term solution when companies consider downsizing and restructuring as cost-saving measures.

According to a study of seven countries placing ageing on their political agendas (Australia, Finland, Japan, Germany, the Netherlands, the UK and the US) the degree of attention given to public policies on age and employment varies considerably both in the type of measures used and their results (Taylor, 2002). The workforce participation (percentage of the population with a job) of those over the age of 55 in these seven countries (assessed in 2000) differs considerably. Measures to encourage working

longer differ from country to country. In the US, there is no strong federal influence and differences between the States are not very significant. In the Netherlands some strong efforts to influence working longer can be seen, to be expected in view of the country's limited size and administrative tradition. Recent EU studies on workforce participation tend to combine the Netherlands and Germany (Van der Heijden, 2005) or Belgium, namely the Flemish part of Belgium (Raemdonck and Thijssen, 2005). Studies also group and describe other EU Member States as clusters with the result that comparative international studies cannot always be easily interpreted and that certain rough conclusions are unavoidable. However, the doubts in western countries about early retirement tradition are undeniable: is this economically feasible and socially desirable?

Doubts about the economic feasibility of early retirement are caused by demographic developments in western countries. These developments have an adverse influence on the proportion of working and non-working people. A traditional depiction of a population's structure from young to old is in the shape of a pyramid. However, the base of the pyramid is getting narrower (dejuvenation, namely fewer younger people) and the top is getting wider (ageing, more older people). The population's structure takes the shape of an urn rather than a pyramid. Although various countries with high unemployment figures encourage early retirement of older workers by claiming that they are 'creating room for youngsters wanting to work', the future is more likely to show a shortage rather than a surplus in workforces: business-cycle differentiations and fluctuations will only have a minor influence on that picture. Doubts about economic feasibility are governed by two forces which are:

(a) the ability of early retirement seekers to secure sufficient financial resources to sustain them;
(b) the supply of sufficient replacement workers in the workforce.

These forces are related to the macroeconomic problems of the labour market. A society composed largely of non-working older people will be confronted with huge problems, even if these older people were all relatively rich. The shortage of working youngsters would have a severe impact on such a society: fewer workers means a smaller tax base which, in turn, will impact on provision of services and public facilities. Governments often use these arguments in an attempt to slow down early retirement.

Doubts over the social necessity of early retirement relate to changing insights. The reduced capabilities (abilities, knowledge, skills) of older workers are regularly used as a motive for early retirement. Consequently, the question as to what extent ageing is accompanied by reduced capabilities plays an

important part in the discussion about workforce participation of older workers. This point, more than any other, is influenced by scientific developments. More than half a century ago Harvey Lehman published the well known book *Age and achievement* (Lehman, 1953) in which he tried to explain that there is a link between age, performance differences and performance-related capabilities. It actually provided scientific support for the long existing deficiency hypothesis, the belief that the human line of development can be depicted as a curve showing an increase in mental and physical capabilities during youth and adolescence followed by a gradual decrease from about the age of 35. The notion that a downward spiral becomes noticeable as one gets older has been believed for centuries. The biological-psychological parallel regarding the development of all sorts of human capabilities, as described by Lehman, offered an evidential refinement of these pre-scientific assumptions. Following a long and intense scientific debate (Lehr, 1972) it was found that Lehman's deficiency hypothesis could no longer be upheld: unfortunately this did not mean that the related stereotypes were adjusted, too (Section 1.3). Following the rejection of the deficiency hypothesis, research into development and age continued. Recent studies reveal that the scope for development of older workers is considerably wider than initially expected, an aspect that discussed in Section 1.4. The results of underlying research reports (Sections 1.3 and 1.4) are often used by governments to support the feasibility of the wishful U-turn from early retirement to working longer.

1.3. Developments within organisations: company policies and managerial issues

1.3.1. **Changing policies**

To some extent these doubts encouraged companies to adopt a differentiated approach: beginning in the 1990s' companies (in Europe rather than in the US) became more circumspect in their use of the replacement strategy. However, when the need for downsizing arose, they quickly and unilaterally emphasised early retirement of older workers who were considered as expensive (imbalance between productivity and wages earned) and with limited employability (low ability for other jobs, their current job, or for skill enhancement).

Policy choices aimed at finding solutions for the perceived employability problems (i.e. the perception of reduced employment opportunities) with

older people vary considerably. From the early 1990s, differences among organisations with regard to their perception of the financial feasibility and social necessity of significant early retirement, led to some differentiation in policy on older workers. Four different policies taken by organisations are outlined in Table 1:1 (Thijssen, 1997), illustrating that companies propose different time lines within which they would like to see solutions for the limited employability of older employees. Long-term solutions generally depend on guiding measures, while short-term solutions depend on financial measures. Further, company policy principles are varied: sometimes they are based on accepting limited employability, sometimes on improving employability, i.e. making limited employability more flexible. Consequently, four strategies for employability for older workers need to be distinguished.

Table 1:1 **Older worker policies: employability solutions**

Type of solution chosen	Approach principle	
	Accept limited employability	Remedy limited employability
Financial measures Short term realisation	Replacement strategy (replace older workers partly by younger employees)	Blocking strategy (activate employability by limited use of early retirement funds)
Guiding measures Long-term realisation	Support strategy (stagnation requires measures aimed at suitable employment)	Development strategy (older workers and their managers must learn to improve employability)

Source: Thijssen, 1997.

Replacement and blocking strategies require short-term measures, with emphasis on funding early retirement to a widespread or limited extent. A replacement strategy stimulates collective early retirement by means of favourable financial conditions, albeit in most cases not up to 100 %. A blocking strategy implies a restriction of collective early retirement facilities and limits early retirement conditions particularly by selective application (worsening early retirement conditions, private contributions for early retirement, etc.) assuming that it would increase the employability of older workers. Therefore, the blocking strategy is focused on restricting conditions favourable for a collective worker response. However, contrary to what the term ‘blocking’ may suggest, this strategy rarely, if ever, implies a complete blockage of possible funding variations for early retirement routes for everyone.

Other measures try to make it easier for older workers to continue working and form the core of the support and development strategies. Both strategies are focused on maintenance measures which follow from labour-related opportunities to carry on working. A support strategy is aimed at older workers who are unable to do another job, or even their current job properly, who are offered related suitable employment. The support strategy relies on services from experts on redesigning jobs and adaptive systems and management's willingness to take employability restrictions into consideration. A development strategy focuses on improving the employability of older workers. This strategy requires management performance evaluations and career development support which includes suitable formal and/or informal learning facilities for older workers.

The four policy strategies distinguished here refer to ideal models which, in practice, will hardly ever be encountered in a pure form, but characteristics from these strategies are found in policy studies at various levels (Taylor, 2002). For example, strategic differences exist between target groups within the same company, as seen when policies for staff for flexible employment options differ for those with higher and lower education (Stein et al., 2000). The more education older workers have and the greater their status in the organisation, the more likely flexible employment options will be used to retain them. Another example of strategic differences in practical policies includes combining restrictive financial conditions (blocking strategy) and work adapting measures (support strategy). However, the replacement strategy remains the dominant strategy used alone or in combination with other strategies. Recently, there appears to be a shift in emphasis between the US and the EU; organisations in the US are more likely to favour a blocking strategy, whereas European organisations might prefer a development strategy. However, this generalisation needs support from comparative studies with empirical data, currently not available.

1.3.2. **The role of line managers**

The role that direct line managers of older workers play in everyday practices has been given little attention. The assumption was that line managers do exactly what the organisational older worker policy required, but recent studies do not confirm this assumption (Thijssen and Van der Heijden, 2002). Conditions at department level have a greater influence on practices referring to the retention or departure of older workers than policy conditions at organisational level (Collins et al., 2009). To assist retention of older

workers they need development opportunities and line managers need to be trained in retention techniques.

One of the first detailed studies explicitly discussing the role of line managers dealing with older workers (Boerlijst, 1994; Boerlijst et al., 1993) produced several observations which are still relevant today. First, most managers believe that the ideal structure for a department along worker age characteristics should be the pyramid: many youngsters, fewer middle aged workers and only a few older workers. Managers admitted pursuing this distribution of worker breakdown by age. In the present era of dejuvenation and ageing such an ideal structure can only be an illusion, the pursuit of which is bound to lead to a redundancy of older workers. The second striking observation is the stereotyping of older workers by line managers. Despite the vast differences between older workers of the same age which keep cropping up during empirical research, certain stereotypes are hard to overcome, in particular generalised negative preoccupations related to productivity and flexibility (Chirikos and Nestel, 1991; Thijssen, 1992). This phenomenon can be found everywhere, although there are differences between countries and sectors (Chui et al., 2001; Finkelstein and Burke, 1998; Singer, 1986; van Dalen and Henkens, 2002). Line managers with a strong preference for a pyramidal age structure and a persistent negative prejudice will be obstructionists when employment maintenance oriented strategies are suggested.

Management competences such as motivating older workers or discerning older workers' concerns about being a contributing worker also play a role in which measures will be taken by managers. Career discussions with older workers with little faith in their own capabilities, and who have already engaged in filtering, anticipating early retirement, requires skills that not every line manager possesses. This lack of intergenerational competence of line managers translates into few feasible development opportunities and/or little workforce adaptation. Finally, line managers should be able and willing to pass differentiated judgment on older workers or be trained to do so (Collins et al., 2009). This is important since – as established before – the differences with regard to employability and employment opportunities among older workers vary considerably and will only increase with age (Chirikos and Nestel, 1991).

Although financial conditions for early retirement are often described in general guidelines and negotiated by unions, an obligation to make use of them does not necessarily exist. Line managers, however, are rarely inclined to provide tailor-made solutions, to discuss the differences in employment opportunities and related employment maintenance measures. A ray of

hope exists with regard to a policy for older people focusing on employment maintenance, but reality shows that many older workers retire early or consider future early retirement. Over recent decades various theoretical explanations about the factors related to individual decisions to retire have been proposed and are presented in Section 1.4.

1.4. Opportunities to explain individual early retirement requirements

1.4.1. **Traditional views**

Various theories are based on personal or environment factors. The disengagement theory assumes that human nature automatically tries to achieve a continuing disengagement process as one gets older, ultimately resulting in a withdrawal from various social roles and obligations, a process which the ageing person allegedly considers to be a positive and satisfying experience and on which environment is said to have little influence. This theory, related to the deficiency hypothesis, has often been explained incorrectly referring to the end of life, not to the end of working life. In contrast we find the activity theory based on environmental factors, which assumes that the ageing person finds remaining active a positive and satisfying objective, for as long as the environment continues to provide a challenge. Too hectic or unpleasant environments may lead to stressful situations that are difficult to handle which might only be a temporary phenomenon, but influences whether the activity is seen as positive. The reasons for early retirement are not unilaterally found with the person or the environment (Van der Velde and Van den Berg, 2003).

Another theory covering early retirement is the concept of push and pull factors. These factors may play a role in cost/benefit considerations within rational theoretical selective approaches (Henkens, 1998; Thijssen, 1997). Theoretical models emphasising pull factors assume that older workers are persuaded to retire early because retirement is attractive. The pull includes the lure of additional time for hobbies, for family, or grandchildren and a secure financial situation. The pull factor, a secure financial situation, has been the subject of many theoretical debates. The pull-factor approach assumes that the main cause of early retirement is the number of attractive early retirement regulations. Blocking certain regulations will ‘automatically’ lead to fewer people leaving the workforce. The reasoning behind blocking early retirement is the notion that people are lazy and will prefer not to work unless there is an economic incentive.

Theoretical models emphasising push factors assume that older workers are pushed over the line by difficult employment situations such as increasing work pressure, lacking employment competences and/or by existing negative stereotypes. It is not clear to what extent the self-attribution of negative stereotypes by older workers also plays a part in pushing them out of work. Too large a discrepancy between available and required qualifications will further resignations (Van der Heijden, 2005). This approach assumes that older workers with suitable facilities to bridge these discrepancies will deal effectively with the stressful situation, participate in training and learning opportunities, and will resist negative stereotyping. In recent years research looked repeatedly into the real value of push and pull models. Particular attention was paid to which factor influences early retirement most: the observed qualification discrepancy (a push factor) or the existing early retirement regulations (a pull factor). Qualification discrepancies in general offer a relatively better explanation for early retirement than early retirement regulations (Thijssen, 1997; Van Dalen and Henkens, 2002). This does not mean that the type of early retirement regulations would not have an influence. Generally, however, people in a pleasant working environment that can easily handle their jobs (because their qualifications are up to date), will make relatively little use of voluntary early retirement regulations. In contrast to popular opinion, research shows that people who continue to work are mainly doing it for the satisfaction gained from their work and social reasons while financial reasons appear to be of comparatively little interest. However, the unilateral emphasis on push versus pull factors is giving way to cost/benefit considerations involving both factors.

1.4.2. **Age, development and experience concentration**

Present day approaches focusing on the development of the workforce during the second half of the career can be split into two directions. The first approach links up with ideas originating from adult education such as research about lifelong learning. Many authors have found that significant declines in cognition often manifest themselves when people are in their 60s or 70s, contrary to the deficiency hypothesis (beginning at 35) (Craik and Salthouse, 2000; Schaie, 1990; Staudinger and Lindenberger, 2003). General principles and factors that might promote the willingness and capability of (older) workers to (re)train involves lifelong learning and retraining projects for people who are employed and unemployed (Kaufman, 1995; Thijssen, 1992).

A second, less known, contemporary approach focuses on explaining the huge individual differences in qualifications, which are important for

professional employability and flexibility, among older workers during the second half of their careers. That question becomes more interesting since such individual differences seem to be increasing with age. Older workers (compared to younger employees) are generally not up to date with, and rarely participate in or are excluded from, training. Yet, the differences within this cohort are extreme, even more so than among youngsters. This leads to the assumption that increasing age might be connected with a reduced professional flexibility without actually causing it.

According to these modern theoretical ideas, experience is of much greater importance to individual flexible employability than age, although age and experience cannot be viewed as separate entities. In the late 1980s, the experience concentration theory was developed while considering the differences between specific and generic human capital (Mincer, 1974). The experience concentration theory focuses on explaining the relationship between age and experience (Thijssen, 1992; Thijssen and Van der Heijden, 2003).

The theory has a twofold basic premise concerning the connection between age and experience following adolescence. First, with increasing age, there will be a considerable increase in experience quantity. Second, with increasing age, there will be decreasing experience diversity. The two tendencies (an increase in experience but without much diversity) included in this basic premise will bring about, on ageing, a phenomenon called experience concentration. Experience concentration is to be considered a structural experience pattern contrasting with experience variation. Younger age groups generally exhibit a pattern involving more experience variation; older age groups generally offer more experience concentration. Concentration has an effect often found with specialists: experiencing a fairly limited variety of experiences quickly results in a certain expertise and routine, realising high labour efficiency within a small range of tasks. Variation has an effect often attributed to generalists. By experiencing a wide range of experiences, adaptability to changing circumstances and employability opportunities involving new tasks are relatively high. Therefore, someone's experience built up over a certain period may range from relatively restricted (concentration) to relatively broad (variation). However, both the restrictiveness and broadness of these experiences can become extreme. We refer to related experience patterns as experience deprivation and experience fragmentation. Neither experience deprivation nor experience fragmentation has a positive influence on employability opportunities. With age, experience concentration may become evident in three important domains:

(a) learning-strategic domain: the structure of educational experience at an older age often remains restricted to informal, hands on learning. In that case we speak of schooling experience. The total range of strategies to learn new things may, with age, even be reduced to what is sometimes called incidental learning. Formal activities are used less and less. From a comparative viewpoint, a modest education background is more likely to result in a restriction of formal learning skills and avoidance of future training opportunities;
(b) occupational domain: the structure of the working experience at an older age often remains restricted to minor task adaptations. We are then talking about functional concentration where formal function changes are sporadic. Often an individual may still adapt to simple shifts in tasks brought about gradually and informally if there exists some form of occupational concentration, but more drastic changes in the task package or the working environment are avoided as much as possible. Mobility is avoided;
(c) sociocultural domain: the structure of the networking experience at an older age is often restricted to a shift in emphasis. In that case we speak of network concentration. The social environments and cultural group layers within which people move will, with age, often be restricted to a shrinking and rigid network, to a small circle. The existing network of 'old relations' has, at an older age, the protective function of a convoy. Usually, network innovations at an older age are the exception.

The importance of early recognition of experience concentration is obvious, as the earlier this tendency is recognised, the easier it can be corrected (Thijssen and Van der Heijden, 2003).

1.5. Conclusion

In the past decades there have been various developments of importance to older workers. First, (inter)national demographic developments give rise to reflection on initiatives that might improve workforce participation by older workers. Studies into the differences and similarities of policy initiatives in various countries are important so that we can learn from one another, although care is needed when generalising and transferring findings from one context to the other. At the level of organisations and their managers it would appear that, following decades dominated by replacement strategy, there is now room for more differentiated ideas focusing, in particular, on the promotion of working longer by means of a blocking and development

strategy. The fact that the attitudes and competences of line managers, the bosses of older workers, may play an important role in the maintenance and departure of older workers has only recently become a subject for research. At individual level it is of particular importance that, following the rejection of the deficiency hypothesis and its associated negative stereotypes, further research is focusing on (re)training older workers and the age-related growth of interpersonal differences in employment opportunities and restrictions.

Belief in the irreversible and unavoidable diminishing of human abilities in the second half of the career is changing. At several levels a vanguard of scientists and policy-makers are looking for strategies which can avoid the replacement policy. We assume that beliefs about clear cut differences between younger, promising human assets and older, deteriorating human assets are over the hill.

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2. Lifelong learning for ageing workers to sustain employability and develop personality

Sandra Bohlinger and Jasper van Loo

ABSTRACT

New views and beliefs about working in old age are emerging as a result of demographic change. The traditional way of viewing ageing workers as employees with deficits that should exit the labour market early is making way for an approach where ageing workers are seen as a true resource. In this chapter, we analyse the dynamics of this development from a vocational education and training (VET) perspective by focusing on the relationships between the attitude towards learning and work, learning activities and employability of ageing workers. The goal is to establish a new field of research within VET and to identify new themes and research questions.

2.1. Introduction

Current economic trends and developments in society contribute to a general agreement in science and politics about qualification models and individual learning paths. The traditional allocation of learning to the phase between childhood and labour-market entry, complemented by regular further education and continuing training activities during the career, is no longer sufficient to fulfil future labour-market requirements. As a result, lifelong learning, which advocates continuous learning over the entire life span, has emerged as a new principle for education and qualification routes. For different education and training target groups this requires a new focus on learning goals, different organisation of learning activities and another orientation towards those benefiting from learning.

This chapter reviews the problems, opportunities, research needs and political challenges of lifelong learning. We focus on ageing employees, for whom lifelong learning is at the interface between employability and

personality development. We investigate the tasks and challenges vocational education and training (VET) faces as an academic discipline in dealing with this topic. First, the three most important thematic fields, ageing workers, lifelong learning and employability, are related to one another and are embedded into the current state of research. Subsequently, based on current research and different data sources, we identify factors that impact on participation in learning. These factors are examined and analysed from a VET perspective. We conclude by deriving promising opportunities for future research.

2.2. Focus of the research

Lifelong learning for ageing employees can be examined at three different levels. At macro level, lifelong learning is approached by analysing social change and societal context as well as basic political conditions, to confront the consequences of demographic and labour-market change in such a way that ageing people remain employable and stay active longer. At meso level, organisational strategies about human-resource allocation and development, as well as the steering of qualifications and worker performance, are investigated. At micro level, individual interests and contextual conditions are of importance. This level concerns qualification, education, biographical, temporal, financial and motivational aspects of learning, the basic conditions and contents of further education trajectories and the anticipated fields of

Table 2:1 **Levels of analysis of lifelong learning of ageing employees**

Macro level	• social changes and conditions • basic political conditions • particularly for ageing employees: pension schemes, demographic developments, marginalisation, societal acceptance and image of age and older individuals
Meso level	• organisational human-resource allocation and development in human resources strategies • qualification of workers • particularly for ageing employees: tutoring, organisational learning, work-life balance, transition from work to pension or from pension to work
Micro level	• individual interests and contextual conditions • particularly for ageing workers: attitude towards work and learning, employability, health

Source: Authors.

application of the acquired expertise from a subjective perspective. Table 2:1 provides an overview.

Although complex interactions and relationships exist between these three levels, the focus in this chapter is on the micro level. The complexity of the topic, however, goes beyond the fact that it can be analysed at three different levels. Comparing different countries and the quest for the best strategies to foster labour-market and learning participation, as well as the international variation in contextual conditions, such as pension schemes, also contribute to complexity, uncertainty and haziness.

One of the uncertainties is in delineating the target group. The term 'ageing employees' is generally not based on psychological or anthropological criteria, but mainly on other aspects. In official statistics released by the European Commission (Eurostat), the US Department of Labor (office of labour statistics, employment and earnings) and the OECD, those 55 years or older are considered ageing people. In contrast, in some national statistics such as the German statistics on company-based training ([1]), 50 year-olds are already considered ageing people. The International Labour Organisation applies a more detailed approach, which differentiates between ageing employees between 55-64 years and older employees of 65 years or older (ILO, 2008). In some studies people of 40 are already considered ageing employees (Morrow et al., 1993; Pillay et al., 2003). An overall or generally accepted age classification is not available, explained by the fact that the topic implies no firm age limits *per se*. This is also visible in Table 2:2, which reviews different stage and phase theories of age development.

The range of the age phases differs substantially and depends on the theoretical perspective and discipline. While Mader (2002), for example, considered people of 'middle adulthood' to be between the age of 30 and 60, all people over 13 or 19, respectively, belonged to the group of adults according to Hansen (1964) or Bühler (1959). There is no differentiation between adult people of different ages. The few authors that explicitly allocated ageing people to certain age groups (Havighurst, 1972; Pöggeler, 1975; Kohlberg, 1976) and specified different age limits in their phase models, did not indicate on which theoretical or empirical evidence these limits are based (Bohlinger, 2009).

The process of ageing and the classification of older individuals cannot be justified by biological and/or physiological arguments. Age is a social construct, in which the allocation of people to the group of ageing workers is made in relation to the respective theoretical concept, practical interests and

([1]) BSW – *Berichtssystem Weiterbildung*.

empirical considerations. Especially in politically focused research, current views and beliefs about ageing people, the legal pension age and current life expectancy, play vital roles. However, it is clear that, taking a lifelong learning or labour-market participation perspective, ageing workers constitute a group of individuals in the second half of their working life. Recognising that age limits can be chosen differently, we take the delimitations given in the statistics as a starting point and focus on ageing employees between 45 and 65 years ([2]).

Table 2:2 **Phases of adult life and age**

Author	Designation of the age phase	Years
Bühler (1959)	Young people	13-19
	Human as acting and reflecting entity	20-
Hansen (1964)	Maturity time	13-
Havighurst (1972)	Early adulthood	23-30
	Middle adulthood	31-50
	Later adulthood and later life	51-
Kohlberg (1976)	Young adults	20-45
	Middle age	45-65
	Higher age	65-
Mader (2002)	Middle adulthood	30-60
Pöggeler (1975)	Experience of the age border	43-61
	Age of wisdom and completion	61-

Source: Bohlinger, 2009, p. 95.

2.3. State of research

Several sciences, such as business economics, psychology, sociology, gerontology and pedagogy examine the topic of ageing workers using multiple research methods: incentive and participation research; institutional research; research on work and occupations; and research focusing on teaching and learning, including innovative methods and didactics. As lifelong learning and professional qualification of ageing adults is part of their individual

([2]) From an occupational health perspective, including workers from age 45 onwards in the definition has the obvious advantage that it gives better possibilities for preventive measures (Ilmarinen, 2001).

development and career strategies, it is also an important topic for vocational and higher education and training (Arnold et al., 2000).

However, research on ageing workers is not a novel theme. The issue of older workers' in the labour-market and their performance goes back to the 19th century when the sociology of work and industrial sociology were emerging (Clemens, 2001). Both in these early studies and in the research work in the 1970s and 1980s a problem-oriented view of the topic was common: in this performance declines in ageing workers and ways of dealing with performance deficits through early retirement schemes were key elements (Clemens, 2001; Finkelstein et al.,1995; Rosen and Jerdee, 1976). Changes in research on ageing workers, which tended to be driven by political developments, only emerged in the beginning of the 1990s, when the far-reaching consequences of demographic change started being noticed by the broad public and when criticism of conventional labour-market and pension policies intensified.

In parallel, shifting opinions and views on further education and training (as part of lifelong learning) and towards ageing employees (Table 2:3) can be observed. Stages include a market and institution based approach (1960-70s), an approach that highlights the individual environment (1980s) and an approach which views the individual as a customer (1990 onwards). From 1990 onwards, overcoming barriers to labour market and continuing education and training participation constituted the most important element in policy measures and research. Ageing people were discovered as new clients for education, a true human resource and labour-market reserve, whose employability should be fostered and who should be involved in lifelong learning just like other age groups.

Table 2:3 **Time-culturally conditioned views on...**

... further education			
Personal views	market and institution-based approach	view on individual environment	customer-oriented view
until into the 1950s	1960-70	1980s	starting from the 1990s
... ageing employees			
deficit model, later early exit to retirement		ageing workers as human resources	
starting from mid 19th century until the end of the 1980s		starting from the 1990s	

Source: Authors.

Research on the exit to retirement and on the labour-market situation of ageing people still form the main part of research on employment and participation in training by older individuals (European Commission, 2007, p. 53; Gravalas, 1999; Kruse, 2000; Koller and Plath, 2000; Pillay et al., 2003). These studies focus on decision-making processes in dealing with older workers and models investigating the organisation of work and working hours in the transition to retirement. In contrast, research on (vocational) learning and training of ageing employees is limited (Gravalas, 1999, p. 9), with most studies focusing on competence development and further training of work teams with high average age or on measures in the context of reorganisations (Clemens, 2001, p. 102). A major shortcoming is that most established qualification approaches for ageing workers are in practice stand-alone learning interventions. Models of competence development of ageing workers, linking learning and working and integrated in further training programmes, that provide content going beyond current job needs and that enhance occupational mobility, are scarce (Koller and Plath, 2000, p. 119).

As a result of funding priorities in demographic change, practice-oriented research within national funding frameworks can be found in several countries (Pack et al., 2000; Wolff et al., 2001; Bullinger, 2001) and are often embedded in the framework of the Equal-project (Genera – the young and the old: staff integration as a joint task) ([3]). Moreover, there are some more recent national pilot projects (Puhlmann, 2002; Schemme, 2001) aimed at developing qualification schemes and learning-conducive work designs for ageing workers. These research projects predominantly focus on keeping ageing workers motivated by securing sufficient levels of task discretion and decision-making power (Baethge et al., 2006; Kruse, 2000, p. 82). This implies that it is recognised that further education and learning while working should not only focus on alleviating qualification deficits and addressing barriers to change *ex post*, but also proactively improve employability and prevent age-related problems. This goes hand-in-hand with revaluating non-formal and informal learning processes, where learning on the job becomes equivalent to learning in formal training courses (Eraut et al., 2000; Beckett and Hager, 2002). Just as is the case with work and life-related aspects, a clear separation between different forms of learning does not seem possible, although such a division would be useful from a legal and science-systematic point of view.

([3]) Equal common database available from Internet: https://webgate.ec.europa.eu/equal/jsp/index.jsp [cited 19.8.2009].

2.4. Employability and lifelong learning of ageing people

As conventional qualification models are no longer sufficient to deal with the requirements of the labour market and society, the concept of lifelong learning has emerged as a new design principle for education and training. Education and training are seen as a basis for a process of continuous learning and aim to promote worker motivation and ability and to extend and update knowledge, skills and competences continuously (Achtenhagen and Lempert, 2000; Bohlinger, 2008; Kraus, 2001).

The increasing relevance of adults, and in particular ageing people, participating in learning and training processes is a result of the way in which sociology, education, VET research, the labour-market and social policies have become more concerned with adult life and reflects changed views on adults and age. From this perspective, adulthood is no longer exclusively seen as a 'mature' phase of life, as previously considered in humanistic psychology, developmental psychology and cultural pedagogy. A new line of thought has surfaced, in which adults are seen as a product of, and element in, communication processes as well as in career and competence development activities in the life cycle and work context. This development shows that age is not determined biologically, but is a social construct. Particularly in VET this trend is reflected in the fact that its traditional focus on young people is making way for a view in which VET is seen as an integral part of working life. The political side reinforces this development by providing substantial support for lifelong learning and expressing the view that adults require continuous updating of their skills and competences beyond the phase of initial education prior to working life. Adults face the task of engaging in a sociopolitically desired lifelong learning continuum, while supplying up-to-date and economically usable knowledge, competences and abilities to the labour market and society at the same time. This does not only hold for knowledge-intensive occupations and professions. For medium-skilled workers in all fields of activity:

(a) there is a clear need for extended basic knowledge from other disciplines next to occupational expertise;
(b) there are higher requirements for analysis and problem solving skills;
(c) the demand for social-communicative skills increases (Baethge et al., 2006).

The development of employability, of competences and of required abilities is not uniquely seen as the responsibility of individuals. Educational institutions should also play a crucial role, by laying the foundation for employability and lifelong learning skills during initial training.

From this perspective, it becomes clear that lifelong learning by ageing employees is a topic which, until the 1990s, was usually approached by further education, which is not a new concept. Distinguishing this from other types of learning and work is difficult, as further education covers all topics and contents of working, citizenship and individual life. This is intensified by the interface function of lifelong learning between State and market. As a result, a change of paradigms from traditional further education to lifelong learning is taking place, but has not been completed (Baethge and Baethge-Kinsky, 2002); this is exemplified by the increasing difficulties in maintaining strict separation between vocational and general training (European Commission, 2000). An example is the case with further education and training in languages or ICT, which can be used both in occupational and in non-occupational contexts. The fact that the distinction between general and vocational is maintained primarily has legal, as well as historical, reasons related to financing further education.

In adult education and vocational training the conceptual reorientation from further education to lifelong learning also marks a shift of contents. First, the choice of the term 'learning' in contrast to the concept of 'education' implies a stronger focus on what Alheit and Dausien (2002, p. 567) have referred to as 'narrow concept' of learning activity, which encompasses individual and collective acquisition processes of abilities, knowledge, competences and attitudes.

Learning is understood as a biographically oriented action in which learners interact with their environment (Faulstich and Zeuner, 1999, p. 30; Iller, 2005). In contrast, the term 'vocational education' usually refers to a complex individual or social development process, which pursues emancipatory and identity-setting goals (Lempert, 1998; Lipsmeier, 1992). Closely related is a shift from social to individual responsibility for learning processes, for their outcomes and for their usability on the labour market. As formulated by the OECD (1973; 1996), Unesco (Faure et al., 1973) and the Council of Europe (1971, see also European Commission, 2000), lifelong learning promotes personality development and improves participation in society and employability, which is understood as the ability to obtain and remain in paid employment. Since the development of the concept of lifelong learning, however, there is an increasing imbalance in favour of employability, which is at least partly due to its simpler empirical

operationalisation ([4]). Particularly in German-speaking countries there is an intertwined debate on the relation of occupation and *Beruflichkeit* on the one hand and occupation and employability on the other (Kraus, 2006; Lutz, 2003). This differentiation is not examined here, since the relationship between (paid) work and learning is crucial, not the differences between occupations, occupational activity and work. Obviously, holistic approaches in VET might disappear when focusing on employability.

Further, available data and materials do not permit relevant differentiation between 'occupation' and 'work', etc., but generally enable distinctions between 'working' and 'learning'.

The concept of lifelong learning also covers another range than that of VET. Here, it concerns not only the 'continuation or resumption of organised learning after initial education' as stated in the 1970s (Deutscher Bildungsrat, 1970, p. 197), but, following the formulation of the European Commission (2000), it is seen as a comprehensive inventory of learning activities, in which three main forms of learning are differentiated:

(a) formal learning, which takes place in education and training institutions, leading to recognised diplomas and qualifications;
(b) non-formal learning, which takes place alongside the mainstream systems of education and training and does not typically lead to formalised certificates. Non-formal learning can be found on the job and within the framework of activities of organisations;
(c) informal learning, which is a natural complement to everyday life. Unlike formal and non-formal learning, informal learning is not necessarily intentional, and so may well not be recognised, even by individuals themselves, as contributing to their knowledge and skills (European Commission, 2000, p. 8).

For statistics on further education and training, the distinction between formal and non-formal learning is of limited use in many countries, as most ageing people's lifelong learning neither leads to recognised qualifications nor takes place within general and vocational training systems, but rather in enterprises and independent educational institutions. A more relevant distinction refers to formal and non-formal learning versus informal learning.

([4]) The simpler operationalisation of employability is based mainly on equating it with employment, although this is frequently criticised.

2.5. Participation in lifelong learning

Participation in further or vocational education and training is unequally distributed with respect to age and other individual characteristics (Baethge, 1992; Behringer, 1999; Kuwan et al., 2003). Non-employed people, migrants and ethnic minorities and the low skilled are clearly underrepresented ([5]). Labour-market participation is the most powerful factor impacting participation in learning processes (Auer and Fortuny, 2000). It not only determines the financial resources available for different types of further education and training, but also has a strong impact on access to further education and training and on the applicability of what is learned (European Commission, 2007, p. 199). In all EU Member States, a strong correlation exists between labour-market participation, participation in further education and training, and education attainment (European Commission, 2007; p. 95). Highly qualified (ISCED 5-6) ageing workers between 55 and 64 years of age have the best prospects for participating in further education and training. Countries such as Finland, Sweden and the UK show the highest further education and training participation rates for highly qualified ageing workers, while Belgium, Germany and Luxembourg take a middle position. A problematic feature of these data is, however, that they fail to provide information on different types of further education and training as well as on informal learning, which may be result from current surveys tending to focus on labour-market participation, not on learning behaviour ([6]).

While education attainment remains a crucial factor determining participation in further education and training, the impact of gender is subsiding. Currently, at European level, in all age groups almost the same percentage of men (46 %) and women (42 %) take part in formal and non-formal learning processes.

([5]) It can be shown that ageing people participate less in further education; this is not analysed in greater depth here, as the focus is on ageing people.

([6]) Labour market participation of 55-64 year olds is about 45 % in Europe in 2007. Most ageing people that decide to retire do not re-enter the labour market: less than 4 % of 55-64 year olds return within one year to the labour market and the majority of ageing workers leaves the labour market when reaching statutory pensionable age (European Commission, 2007, p. 74). Of people in this age group, 7 % are involuntarily inactive, while 14 % cannot participate due to health reasons or because of family obligations. Ageing people that have completed higher education are twice as likely to be employed as the low-skilled. Behind the low labour-market participation of ageing people and the resulting limited participation in further education and training are the politics of the 1980s and 1990s, in which early retirement programmes were established as a means to deal with high youth unemployment rates, and ageing workers were offered attractive economic conditions and morally convincing arguments to leave the labour market prematurely (Vonken, 2008).

European data from the third continuing vocational education and training survey held in 2005, show increases in ageing workers' participation in further education and training: overall participation (covering all economic sectors and businesses employing 10 persons or more) rose to 20.7 %. This compares to a general participation rate of about 30 % for workers of all ages. This means that ageing workers continue to participate less in further education and training than the younger age cohorts.

More detailed statements can be made by differentiating between different types of further education and training and types of learning, which are found in the adult education survey. As an example, Table 2:4 presents data for all age groups in Germany.

The results are not surprising: ageing people participate less in further education and in particular in vocational education and training. However, part of this may be due to the fact that both employed and non-active individuals were surveyed. Among ageing people, inactive persons are overrepresented. If the group of employed ageing people between 55 and 64 years is examined, it is found that participation is constant until the age of 60 (Schröder et al., 2004).

At the same time, the proportion of workers aged 50 or above taking part

Table 2:4 **Participation in lifelong learning**

(%)

Type of participation	Age groups participation rates					
	19-24	25-34	35-44	45-54	55-64	65-80
Regular further education and training (FED)	45	10	3	2	2	0
Further education and training, of which	55	55	55	51	40	25
• in-house further education and training	41	42	43	37	31	9
• further education and training linked to a profession	13	14	15	16	10	8
• further education and training not linked to a profession	14	10	8	8	7	14
Self-learning (INF), of which	55	53	54	56	54	10
• for occupational reasons	35	34	38	37	34	30
• for private reasons	18	20	18	21	22	19
All forms of learning						
Learners (at least a form of learning), of which:	84	74	75	71	66	50
• education or training (FED or NFE);	72	58	56	51	41	25
• exclusively self-learning (INF).	12	16	19	20	25	25
Average number of learning activities (FED, NFE, INF)	2.6	3.0	2.5	2.5	2.4	2.4

FED = formal education and training
NFE = non-formal education and training
INF = informal education and training
Source: TNS Infratest Sozialforschung, 2007.

in VET on their own initiative is slightly higher than the corresponding figure for workers younger than 50. There are no significant differences in the initiative for participation according to gender (Schmidt, 2006, p. 10). Given the declining participation in VET with age, the percentage of ageing people who only learn informally (and self-directed) is higher than the corresponding percentage for younger people. Two results are remarkable: the proportion of people active in learning is at least 50 % for those aged 55 or older and the figure for people engaged in education and training among the 55-64 year-olds is 41 %. This shows that surveying individuals (and in particular questions on informal learning) reveals substantial learning activity which cannot be uncovered using other methods. In addition, the usual stereotype of ageing workers not engaged in any learning activities does not apply, if one considers the subject perspective and informal learning.

2.6. Factors impacting learning participation

Several factors in addition to labour-market status impact on participation in further education and training. These include health conditions, available time and financial resources, job satisfaction and, above all, attitude (of ageing workers, of employers and of society) towards learning, working and performance of ageing people (Fronstin, 1999; Henkens, 2000; Shultz et al., 1998). Factors affecting participation in education and training interact with those having an impact on labour-market participation. Strict separation between aspects of work and life is difficult, although desirable from both political and scientific perspectives. Shultz et al. (1998) classified the factors affecting labour market and learning participation by differentiating between push and pull factors (Table 2:5) ([7]).

Although this categorisation does not enable statements on how the different factors interact, it is clear that the attitude of employers to ageing workers must be seen in connection with their performance and performance assessments. Employers with negative attitudes may not provide the best further education and training and working conditions for their ageing personnel and may evaluate their job performance in a more critical way than they do for younger employees.

Nevertheless, an analytical differentiation between push and pull factors can be

([7]) Williamson and McNamara (2001) find that the impact of various factors on labour-market participation differs by gender, race and age.

Table 2:5 **Push and pull factors according to Shultz et al. (1998)**

Perspective	Push factors	Pull factors
Employers	• negative perception of ageing workers' abilities • high labour costs related to younger employees	• high degree of experience and expert knowledge • regard (depending on the position)
Employees	• health impairments • missing/insufficient qualifications • missing opportunities to develop or extend qualifications and competences • factors related to the workplace • negative attitude towards current occupation, adverse working conditions	• financial incentives for early retirement • attractiveness of life in retirement (hobbies, honorary activities, second career)

meaningful in developing, for example, measures to stimulate positive employer attitude. In addition, it is necessary to examine the relationships between age and learning and working capacities to clarify to what extent ageing people can and want to participate in learning processes and in the labour market.

2.6.1. Factors impacting learning and performance

Research on learning and performance capacities first requires deciding what dimension is to be examined: should emotional, occupational, physical or cognitive aspects be at the centre of attention? In addition, the analysis requires specifying whether the learning and performance of ageing people is to be viewed on a social-structural, life-course oriented or individual-structural level. Most studies of the connections between performance and age concentrated on performance and ignored emotional and motivational aspects (Cedefop, Tikkanen and Nyhan, 2006; de Grip and van Loo, 2002; European Commission, 2006). From medical and developmental psychological studies many findings are present, in which age trends in a multiplicity of cognitive basic operations are discussed. Early studies tended to focus on finding performance deficits associated with ageing (in detail: Birren and Schaie, 2006).

From a VET perspective three areas, that concern action-oriented-individual and occupational learning and performance ability, are particularly influential ([8]):

(a) the attitude of ageing employees: a negative attitude towards learning not only affects performance, but also leads to a smaller probability of participation in further education and training;

([8]) We do not deal with 'health' and 'pension systems and finance' here in more detail, since these are only marginally connected to VET research needs.

(b) the different learning aptitudes of ageing employees;
(c) employer attitudes: ageing workers are considered to perform less well and to have less developmental capacities than younger workers. Further, they are considered to be resistant to change and would have problems in dealing with new technologies. However, ageing workers' better developed abilities and talents, their more stable behaviour and their longer tenure with enterprises are seen as assets.

Little is known about the interaction between these factors. Most studies on occupational performance consider 'learning ability and performance' to be purely cognitive aspects (Table 2:6).

Table 2:6 **Summary of findings on ageing and work performance**

Authors	Job type method	Findings
Czaja and Sharit (1993, 1998)	Computer-based work tasks (data entry, database inquiry, accounts balancing)	Age-related decline in performance
Giniger et al. (1983)	Manufacturing	No age-related decline
McEvoy and Cascio (1989)	Meta-analysis of 65 samples	Results varied according to type of performance measure and job type; age accounted for only small degree of variance
Morrow, Leirer and Yesavage (1993)	Simulated flight performance	Minimal age difference in primary flight tasks; age decrement in Air traffic control communication
Parasuraman and Giambra (1991)	Vigilance task	Age decrements in performance
Rhodes (1983)	Comprehensive literature review	Equal evidence that job performance increased with age, decreased with age, was not related to age
Streufert et al. (1990)	Management performance	Age differences in numbers of decision, decision strategies and less optimal use of information
US Administration on Aging (1984)	Office workers	No age-related decline
Waldmann and Avolio (1986)	Meta-analysis of 40 samples	Results varied according to type of performance measure and job type; age accounted for only small degree of variance
Warr (1994)	Meta-analysis of more than 100 research studies	No age-related decline

The table shows that there are both positive and negative relationships between age and work performance. Notably, at middle age (35-60 years) no causal links between age and performance can be established (Costa and McCrae, 1997; Loevinger, 1997). Especially in the case of solving knowledge-intensive problems, age-stable results are to be expected. Only around 1 % of individual differences in job performance can be linked to age, and part of this can be attributed to the fact that individual performance is more complex than can be measured in standard tests. Another problem is that, in many studies, performance is judged by superiors and is subject to subjective perception bias.

Some studies propose that performance on complex cognitive tasks is moderated by a relatively broad array of contextual variables reflecting the exposure to various events and environments (Hultsch et al., 1999). Favourable conditions and experiences may forestall or attenuate the declines observed in various cognitive processes in later adulthood (Hultsch et al., 1999, p. 245). Salthouse (1991) has characterised this phenomenon by the 'disuse' perspective on cognitive ageing. According to this line of research, declines in cognitive skills are attributed to atrophy.

Instead of examining the relationship between age and overall performance, a differentiation according to types of activity appears more meaningful. Warr (1994, p. 311) differentiated between four categories of activity influenced by age in different ways:

(a) age-enhanced activities remain within basic capacities despite advancing age and performance benefits from experience;
(b) age-impaired activities have a negative relationship with age as they are highly demanding tasks including continuous rapid information-processing and/or strenuous physical activity;
(c) age-counteracted activities relate to tasks for which ageing workers face increased difficulty in some areas (such as due to a decline in information processing) but for which they are able to compensate;
(d) age-neutral activities relate to routine and non-problematic work which requires firmly established skills that can be used automatically.

Only for a single type of activity is the correlation between age and performance negative. This negative relationship is only relevant when speed and muscle power are the basis of the activity (such as in professional sports or in the case of air traffic controllers) ([9]). For most professional

([9]) Reviewing the literature on age and individual productivity, Skirbekk (2004) concludes that reductions in productivity at older age are particularly strong for work tasks where problem solving, learning and speed are needed, while in jobs where experience and verbal abilities are important, ageing workers maintain a relatively high productivity level.

activities it is clear that ageing employees facing decreases in abilities resulting from ageing are able to counteract this by increases in experience, wisdom or high motivation (Ilmarinen, 2001). In addition, it is to be expected that the readiness to participate in formal, non-formal and informal learning processes is higher when work tasks include learning potential, which adds to competence development both from the employers' and from the employees' perspective. Examining occupations with above average proportions of ageing workers, such as service and security occupations and high-level administrative staff (Dostal, 2000, p. 40), showed that job requirements are in line with the abilities of ageing workers and that a fit between work environment and the individual worker exists (Iller, 2005, p. 63; Kruse and Lehr, 1999, p. 193).

In addition to research on the direct relationships between ageing and performance, economic theory and related disciplines focused on examining the factors that impact the obsolescence of skills. A crucial insight of this line of research is that skills obsolescence does not necessarily imply actual decreases in skills (technical obsolescence), but may also occur as a result of skills that become outdated due to market developments (economic obsolescence) ([10]). Age plays a role in both technical and economic skills obsolescence. Technical obsolescence (or depreciation) is linked to age as 'the ability of individuals to apply acquired skills and knowledge to income producing opportunities systematically changes with age' (Rosen, 1975). Economic skill obsolescence for ageing workers is often approached as a human capital vintage phenomenon. Over time, knowledge, skills and working methods become less relevant or even useless and those that possess earlier vintages of human capital (ageing workers) face capital losses.

Research has also investigated differences in the durability of skills in various fields of expertise (De Grip and Van Loo, 2002). McDowell (1982), for example, has shown that knowledge in physics and chemistry becomes obsolete much more rapidly than in humanities. High rates of obsolescence in particular fields have been put forward as important determinants of occupational choice (when women avoid certain high-obsolescence professions due to expected career interruptions, Polachek, 1981) and occupational mobility (when ageing workers engage in second careers, such as a physicist becoming an academic administrator, McDowell, 1982).

([10]) For a general discussion on the distinction between technical and economic skills obsolescence see Neumann and Weiss (1995).

In human resources management, research on skills obsolescence is strongly influenced by Kaufman's (1978, 1979) work on the obsolescence of engineers. Kaufman defined obsolescence as 'the degree to which organizational professionals lack the up-to-date knowledge or skills necessary to maintain effective performance' (1989, p. 74). Two types of obsolescence were distinguished: job obsolescence, which refers to the ability to perform one's current job or work role, and professional obsolescence, which can be described as the capacity to be effective in future work roles. Kaufman (1989) found that changes in technology, organisational climate, the use of skills at work and individual characteristics have a positive impact on job obsolescence. Both formal and informal learning activities had a negative impact on obsolescence. Kaufman's results are also relevant in the context of ageing and work as his results show that cognitive, motivational and personality factors, related to staying up-to-date, impact obsolescence considerably.

2.6.2. Factors impacting attitudes towards learning and work

It is, above all, individual attitude towards work and learning and the perception of age that affects actual performance. This applies equally to employers and to employees. Several studies have shown that employers attribute reduced performance and a lower development and learning aptitude to older employees compared to their younger colleagues (Aviolo and Barrett, 1987; Finkelstein et al., 1995; Rosen and Jerdee, 1976). In addition, ageing workers are often seen as change-resistant and are believed to have more problems in dealing with new technologies compared to younger workers. Kaeter (1995) showed that this belief is mainly based on classical studies from the medical field that provide evidence for age-induced decreases in physical efficiency. However, ageing workers' know-how, their more reliable behaviour and their longer tenure with firms have often been found to be positive age-related factors (Kujala, 1998; Schrank and Waring, 1989).

A negative attitude towards learning not only hampers the abilities of ageing workers, but also leads to a smaller probability of participation in further education and training (Culley and Vandenheuvel, 2000; Peterson, 1983; Plett, 1990; Warr, 1994). In addition, the impact of the attitude towards learning on actual learning processes and learning results for ageing workers has been examined several times (Biggs, 1999; Marton, 1998; Schommer, 1994). One of the main findings in this research was that employees who see work and learning as two completely separate processes and failed to see learning as an integral part of work, are far less willing to engage in learning

processes in the work context ([11]). These employees also failed to recognise the need to acquire knowledge from different sources and through different learning processes to extend their competences and talents. As a result, they did not recognise these as personal arrangements and attributes that contribute decisively to personality development (Pillay et al., 1998).

Analysing the interdependencies between learning and work, Boulton-Lewis et al. (2000), Marton et al. (1993), Pillay et al. (1998) and Sandberg (2000) have conducted qualitative studies focusing on employees aged 45 years or older. Four attitudes to work could be identified, which are connected to five attitudes to learning (Table 2:7).

The qualitative character of these studies does not easily allow generalised statements, but can serve as a basis for conducting further quantitative analyses of the relationships between learning and working. In addition, they

Table 2:7 **Types of attitudes towards learning and work**

• work as a 'job', which is seen as an integral part of earning money and surviving. Although work conveys a feeling of security, it is at the same time an unavoidable and annoying duty	⟷	• acquisition of competences, talents and abilities, to remain employable. Learning serves as an instrument to master daily work tasks
• work as challenging experience, which not only serves security, but also produces intrinsic satisfaction, if it covers challenging tasks • work as personality development and enrichment, enabling the individual to acquire activity-related knowledge and skills. As challenge is a vital part of the activity, employee self-confidence is promoted, which in turn leads to possibilities for self-expression in work	⟷	• observations and experiences in the work context in a longer-term perspective, which improve comprehension for the occupational activity. Learning is a gradual and long-term process • learning as further education inside and outside the enterprise whereby objectives and contents must be structured and given • learning as a lifelong process, which covers the acquisition of competences and knowledge via formal, non-formal and informal learning processes in and outside the work environment.
• work as a structure building element. The individual defines himself in terms of occupational activity and links this so closely to learning that learning and work become intertwined. This view is found among few individuals.	⟷	• learning as part of developing and shaping personality. The transitions between learning, working and living are fluent. This aspect is associated with a high degree of satisfaction in learning and work.

Source: Authors.

([11]) Work-related, job-integrated and job-related learning; see Section 2.6.3.

provide insight into the problems and barriers that ageing people face in relation to participation in the labour market and in lifelong learning from an individual perspective; these reveal that mere financial support is insufficient to stimulate participation in further education and training.

Through demonstrating that individual attitudes towards learning and working, as well as the anticipated benefit of what is learned, have a decisive impact on actual learning and work behaviour, Bolder (1998), Bolder and Hendrich (2002), von Bardeleben et al. (1996), Iller (2005) and Schröder et al. (2004) addressed factors that have been neglected in research for a long time. Their findings enable more insight into why people with simple manual jobs participate less in further education and training than high-skilled people engaged in knowledge-intensive activities: the former attribute low probabilities to the possibility that further education and learning improves their position, view learning at the same time as an activity requiring substantial effort, and question its applicability in work settings (Iller, 2005, p. 137). This leads again to the issue of which characteristics work activities must have to ensure that they are 'ageing-fair' (Section 2.6.1) and which activity characteristics offer learning opportunities while also providing possibilities to apply what is learned in work settings.

2.6.3. Factors impacting the learning potential of work activities

A further issue is how work can be arranged to secure adequate learning potential for adults, how work for ageing workers can be structured in such a way that it connects to previous knowledge, experience and competences and meets their learning needs. Connecting new learning to earlier experience is crucial, as ageing workers frequently undergo encapsulation of job know-how (Rybash et al., 1986) or concentration of experience (Thijssen, 1992), which implies that, over the career, individual skills become more attached to certain work domains and become increasingly less transferable. Supporting and enhancing motivation is also crucial here. Although the speed of learning may decline with age, the actual learning process is not dependent on age, as strong learning motivation may compensate for lower learning speed at higher age (Ilmarinen, 2001).

Depending on content, process and closeness to the job, different types of learning can be arranged which, alongside formal forms of learning such as participation in training courses or seminars, include work-related, job-integrated and job-related learning (Schiersmann and Remmele, 2002, p. 31). These forms of learning are considered to be particularly suitable forms of VET for ageing people as they:

(a) secure continuity in learning;
(b) refer to previous professional and learning experience;
(c) are closely linked to professional practice;
(d) are not selective in terms of age (Bergmann, 1996; Hackert and Skell, 1993; Sauter, 1999).

Learning-conducive activities are no operational target per se, but stem from attempting to adjust operational strategies to changing market and competitive conditions, which increases the need for employable personnel. They can be applied in three areas:

(a) organisation and work input concepts (group-, team-, project-work);
(b) market- and performance-based control forms (goal-setting, cost and profit orientation);
(c) deployment of new technologies (logistic systems, project management systems).

Realising learning-conducive work activities, however, also requires work structures that are beneficial to learning, which can only be achieved by a consistent design of technology, work organisation, work activities and qualifications. A learning-conducive design of work is at the same age-invariant, as it takes as its starting point lifelong work performance, in which psychological and physical characteristics contribute to lifelong employability. In detail, work structures that are conducive to learning require the following elements:

(a) complete activities and/or overall tasks;
(b) sufficient control of contents and management of time in different areas of work;
(c) individual goal-setting and transfer of responsibility;
(d) self-control over work process and work results;
(e) variety in activities by task integration and flexible task allocation;
(f) social recognition of performance, effort and commitment and participation in decision-making processes.

These characteristics are also characteristics of work that foster internal motivation potential, which is crucial for developing intrinsic work motivation.

Work activities, which do not reflect these characteristics due to their Tayloristic or standardised nature, hamper motivation and competence development. Baethge et al. (2006) showed that this problem is prominent in simple production work, in parts of banking and insurance services as well as in machine and plant construction and engineering.

The effectiveness of learning-conducive activities can be further increased by organising work in age-heterogeneous work teams, as this ensures additional learning potential by virtue of the age structure. The basis for this is the combination of up-to-date theoretical knowledge of younger workers and the implicit knowledge of ageing workers which is difficult to verbalise. Assuming that know-how constitutes most competences, substantial learning effects arising from an optimal age-mixture of staff in work teams can be expected.

The discussion has shown that ageing and work opens up many new challenges and research opportunities for VET research. These are summarised in Section 2.7.

2.7. Future research needs

VET research can play an essential role in providing answers and insights to open questions on ageing and work. A first priority should be the collection of comprehensive data covering ageing employees, nationally and at European level, which would enable age-differentiated statements about ageing workers. Currently, data on occupational qualification and position, on motives, on barriers to labour market and learning participation, and particularly on learning-conducive activities, are either available only for the entire group of economically active adults or limited to individual case studies. There is a clear need to develop detailed indicators on the motives, contextual conditions and decision-making processes of ageing people (i.e. both employed and non-employed) connected to participation in all types of lifelong learning. A particular example of gaps in understanding is the individual cost-utility relationship, of which we know little more than that it concerns a highly subjective decision-making process, which must result in 'an agreement between individual educational and acquisition-biographic assumptions and conditions' (Iller, 2005).

It has become clear that only a few types of task performance actually correlate negatively with age and that the attitude to ageing people is crucial. Given the importance of attitude to work and learning, VET research should address the question of how learning and working can be arranged to motivate ageing people in ways that benefit both enterprises and individuals. A key task is to develop novel concepts of lifelong learning guidance, lifelong career planning and continuous competence development for individuals through learning-conducive activities that improve motivation to keep learning and

working. Enterprises should focus on developing and testing sustainable approaches to learning and competence development. Such a competence strategy requires sound theories and concepts, in which the organisational design of learning-conducive activities goes hand-in-hand with the motivation of employees, so that employees are not only willing to perform the changed tasks, but are also able to do so. In this respect, a substantial gap in current research exists, which becomes even more visible when trying to address ageing worker issues and concerns in specific sectors and occupations.

Finally, VET research has an important role to play in developing concepts for planning and promoting various types of rotation, within and between enterprises and occupations, that comprise learning-conducive elements, are linked to existing qualifications and experience, and that can be integrated in individual careers. Job and task rotation are learning-conducive activities, in the broadest sense, which offer great potential to support ageing workers' performance.

The responsibility for creating the basic conditions for lifelong learning is a shared one between politics, society and science. However, care must be taken to avoid measures and policies that force people in a certain direction: ultimately, the decision for or against participation in lifelong learning remains with the individual. It is also crucial to recognise that individual decision-making processes impacting the participation in learning (including the attitude to informal and incidental learning) are not only based on a rational weighing of structural factors, but rather on the interaction between these and subjective-biographical factors.

The tasks for VET research do not only involve providing foundations for political decisions about labour-market and social policy for ageing people through scientific research, but also to develop and evaluate lifelong learning theories and concepts for all age groups, to support organisational and individual motivation intended to strengthen the links between learning and working processes, and to aid lifelong career planning.

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3. A literature review basis for considering a theoretical framework on older workers' learning

Birgit Luger and Regina Mulder

ABSTRACT

Various strands of research focus on older workers. Despite increasing interest, a holistic theoretical approach is missing. This chapter presents the results of a literature review as the basis for developing a theoretical framework on older workers' learning. The criteria for the literature search are derived from an analysis of definitions of older workers' learning and of the term 'old'. The literature review helps to understand how older workers' workplace learning is conceptualised in empirical studies and gives an overview of the determinants that influence older workers' workplace learning. Both aspects are used to identify elements that have to be considered when developing a theoretical framework on older workers' workplace learning that can be used for further empirical research.

3.1. Background

Current demographic developments will cause far-reaching changes in the next few years. Declining mortality rates, increasing life expectancy and low fertility rates will lead to a change in the age structure. In the 1950s, the average age of the world population was 23.9 years; it increased to 28.0 years in 2005. In 2050 it will be 38.1 years. In the more developed countries the average age is expected to be 45.7 years (Timonen, 2008). According to Illmarinen (2004), 25 years from now, people older than 50 years will represent more than 30 % of the workforce. These figures illustrate the increasing number of older workers and, therefore, it is important to take a closer look at their learning activities.

The OECD (2006) distinguishes three aspects of ageing: individual ageing, population ageing and qualitative aspects of ageing. Individual ageing means that people live longer. Population ageing means that

there are many older people in relation to younger people. Qualitative aspects of ageing include the changing expectations of older people. All of these aspects have a distinct influence on older workers' role in modern societies. From a social perspective, demographic changes are related to a 'greying' society (Hedge et al., 2006; Timonen, 2008). From an economic perspective, demographic changes are related to a decreasing number of younger employees in the coming years. Early retirement models no longer satisfy human resources development strategies. On the contrary, older workers will be needed longer (Naegele, 2004; Hedge et al., 2006; Alley and Crimmins, 2007). Their work performance, their experience and their potential for further learning become an indispensable asset for companies (Paloniemi, 2006; Tikkanen, 2008). From an individual perspective, age is associated with a loss of cognitive ability and the opportinity to learn (Verhaegen and Salthouse, 1997). Tikkanen (in Cedefop, Tikkanen, 2006) criticises these negative views of older people. Becoming old can be considered as a burden or an opportunity. Old people have to learn how to remain useful for society, the economy, and for themselves.

Although lifelong learning is important, there is empirical evidence that worker participation in training decreases with age (Statistisches Bundesamt, 2008; Tikkanen et al., 2002). Especially in small and medium enterprises, participation of older workers in training is low (Gonon et al., 2005). This can be caused by different groups of factors: individual characteristics of older workers (such as lack of motivation), failing support of their bosses or colleagues, insufficient availability of adequate training that fits older workers' needs, and other more practical aspects such as the cost of training and lack of time (Mulder, 2006).

The fact that older workers rarely participate in formal training, leads to the question of whether their learning differs from that of younger workers. Before we examine this, it is necessary to determine how the learning of older workers can be measured; this requires deeper understanding of the learning processes of older workers and of the determinants of learning. In this chapter we present the results of a literature review on the conceptualisation of older workers' learning at the workplace. The insights from this review are used to derive elements required to develop a theoretical framework on the learning of older workers that can be used for further empirical research. First, the meaning of the concepts 'older worker' and 'learning of older workers' are clarified. Second, the procedure and the outcomes of the review are presented. Finally, we provide an overview of elements that have to be considered when developing a theoretical framework.

3.2. Older learners

In this contribution the focus is on older workers and their workplace learning. Many different theories and definitions are used in research on age and learning: the literature review is focused on specific aspects of these topics. Therefore, in developing criteria for the literature search, it is important to make clear what is meant by age and learning.

3.2.1. **Aspects of age**

The terms 'ageing society', 'greying workforce' and 'silver century' occur frequently as descriptions for demographic change. All these metaphors paraphrase one reality: the number of old people is increasing. But what is old? Koch (1990) states that ageing starts to accelerate at 30. Biological age refers to the functioning of the body and ageing goes along with the decomposition of parts of the body. From a psychological perspective age refers to intelligence and memory (Timonen, 2008). Sociocultural age depends on society's expectations of older people. Chronological age is the most straightforward but often least informative indicator for age. The focus of this perspective is the number, not the individual's background (Timonen, 2008; Tikkanen, 2008). All these classifications do not give information about individuals' ability to learn or individuals' experience but as Naegele (2004) states, are indispensable for empirical research to define a specific age limit to be able to contrast diverse groups.

There are several disciplines analysing older people. Depending on the research topic, each perspective sets specific age limits. Research on wisdom, for instance, focuses on people who gained substantial experience throughout life. Therefore, they do not set a fixed age, but rather examine the development of wisdom during lifetime (Baltes, 1993; Baltes and Smith, 1990). In research on older workers' learning, various other definitions of age have been proposed.

The OECD (2006) defines older workers as employees who are in the second half of their working life, who have not yet reached retirement age and who are still employable. This type of definition seems to be useful as long as the examined group is homogenous. In a study by Unwin and Fuller (2006), in the steel and metal sector, the age limit was set at 40 years. In this special case the workers that were 40 years and older were in the second half of their working life. In international research older workers are often defined as employees aged 45 and older (Tikkanen et al., 2002, 2008; Billett and Van Woerkom, 2008).

Summing up these different approaches in defining 'older workers', we conclude that the definition of 'old' has to depend on the profession and on the examined variables (motivation to learn or opportunity to learn). We have to consider the fact that people work, and that they are beyond the second half of their working life. There cannot be a fixed definition of older workers due to differences in starting age in specific occupations. Consider, for example, the difference between truck drivers who start working right after school, and school principals who start working after being a teacher at an older age. This last group could presumably be in the second half of their working life from age 55 onwards. In general, it is important to consider how long people work in their current position. For these reasons no rigid age limit can be set, as it depends on the profession and the current position of the older worker. It is, therefore, context bound and has to differ in different studies depending on the topic.

3.2.2. **Aspects of learning**

Before considering what the relevant aspects of learning are in relation to the workplace, we have to clarify who or what the subject of learning is. Argyris and Schön (1996) define the organisation as subject of learning. Akkerman et al. (2007) focus on the group as subject of learning. The third possibility is to see the individual as the unit of analysis in relation to learning. In this contribution, the individual perspective of learning is the most adequate. Learning in daily work is a process whereby knowledge is acquired (Eraut, 2004). For research, learning processes of older workers theories on experiential learning and workplace learning are relevant (Kolb, 1984; Billet, 2004; Cedefop, Billett and Van Woerkom, 2006; Felstead et al., 2005; Eraut et al., 2002).

Taking a closer look at processes that lead to the acquisition of knowledge, skills and competences, two perspectives can be distinguished, which contain different but complementary views on older workers learning processes:

(a) cognitive perspective: this sees learning as the acquisition and improvement of knowledge based on already existing knowledge structures. Existing knowledge is memorised in scripts, a new experience modifies these scripts, and the existing memory structure is changed (Kolodner, 1983). This cognitive perspective also refers to the experience of older workers (Gruber, 1999). It can be assumed that older workers have memorised more scripts than younger workers. Learning, therefore, is viewed as acquiring knowledge leading to changing existing knowledge structures and creating new ones. This view can be compared with what Sfard (1998) called the acquisition

metaphor. 'Acquiring' knowledge means that learning is a well defined product with a visible outcome. This cognitive perspective is useful to examine how older workers process new information;

(b) activity perspective: this addresses what older workers do to learn new things. It is based on theories of experiential learning cycles (Kolb, 1984) that define learning as a cycle of action-reflection-action. Learning is seen as an interaction between experience and environment. Experience consists of two dimensions, the experience that an individual gained during life and the concrete experience that triggers a person to start learning.

Learning is defined as an individual process but it can take place in social interaction within groups as well. Felstead et al. (2005) refer to learning at work as a process in which learners improve their work performance by carrying out daily work activities that entail interacting with people, tools, materials and ways of thinking as appropriate. The concept of collective learning processes is influenced by theories of Lave and Wenger (1991). Their approach of communities of practice is an example of a social learning process (Wenger, 1998; 2000). The activity perspective can be compared with Sfard's (1998) 'participation' metaphor. Engeström (2001) extended this metaphor to accentuate the transformative potential and suggests a 'learning as construction' metaphor. This metaphor emphasises the individual's active role in the learning process. However, theories of experiential learning (Kolb, 1984) and workplace learning (Billett, 2004) also stress the relevance of the context for learning processes, which often take place in social interaction. Both individual and collective learning have to be considered for the development of a theoretical framework.

Summing up, it is important to realise that learning is a process which contains both cognitive and activity elements. Relevant dimensions in this respect are acquisition and participation. Knowledge is constructed either individually during work or collectively in social interaction. Activities that lead to learning can be both cognitive activities and physical ones (such as searching the Internet) that lead to cognitive activities. Learning processes at the workplace depend on the characteristics of the context, specifically of the job tasks and of the organisation. Therefore, determinants of learning at individual level (such as older workers' experience, motivation and competence) and organisational level (characteristics of the workplace, job tasks) have to be part of the theoretical framework.

3.3. Literature search procedure

The theoretical considerations above constitute the basis for developing criteria for literature search. This search was carried out to retrieve an overview of existing literature on older workers' learning and to analyse how learning at work is conceptualised and measured. International research databases in educational sciences and psychology (ERIC, FIS-Bildung, PSYNDEXplus) were used to search for relevant publications. These databases include related disciplines such as sociology, human resource development and organisational studies.

Theoretical and empirical studies that try to combine the concept of older workers and workplace learning were analysed. The search was conducted in three stages. First, all literature containing 'adult learning' and 'learning of older people' was screened. Second, literature containing 'workplace learning' was searched. Third, literature on 'older workers learning at the workplace' was screened. This third stage is relevant for this study and, therefore, presented in more detail below.

3.3.1. **Older workers' workplace learning**

In this section we describe the different phases of the literature search. After that we present the findings of the reviews.

3.3.1.1. *Phase 1: search*

The search strings used consisted of combinations of terms referring to:

(a) older workers, ageing workforce, ageing workers;
(b) learning, lifelong learning;
(c) work, workplace.

The search was restricted to literature published between 1998 and 2007 for three reasons. First, to be able to conduct a meaningful analysis, there was a need to limit the total number of publications, as literature on this topic turned out to be vast. Second, the aim was to focus on current developments, as the relevance of ageing and work increased substantially in recent years. Third, it was expected that ideas and results of research published earlier than 1998 would already have been considered in recent research publications.

The literature search resulted in more than 3 000 research publications, which varied in research background. Psychological literature mainly focuses on individual learning and on the cognitive abilities of older people: it rarely considers the context in which learning takes place. Literature on

adult education focuses mostly on the individual learner and the value of the individual's learning for society. The workplace context is often neglected and empirical research is sometimes missing. Research on VET mainly focuses on the characteristics of the workplace as a learning place and on the characteristics of on-the-job training, but less on the individual development of workers. Economic literature concentrates on the importance of older workers for companies, for instance by focusing on their productivity. Learning processes are not of interest in this type of research. In line with our aim to find publications that combine theories on workplace learning and the learning of older people, many hits (about 2 500) were excluded.

In the following phase several criteria were defined to select relevant publications that focused on the learning of older workers through the workplace, at the workplace and for the workplace. These were developed on the basis of the theoretical concepts of 'older worker' and 'learning' mentioned before. As the focus of this study was learning processes at the workplace from an individual perspective, the role of the older worker as learner is essential here.

3.3.1.2. *Phase 2: criteria*

Publications are considered if they meet criteria 1 to 3. The lack of the fourth criterion does cause exclusion:

(1) the study should be either empirical research, or contain the development of a theoretical framework. We focus on these types of studies because we want to gain deeper understanding of how the authors conceptualise older workers' workplace learning;
(2) studies should focus on working people in their second half of working life;
(3) learning should focus on 'learning through the workplace', 'learning at the workplace' and/or 'learning for the workplace';
(4) studies should contain possible factors that influence older workers' learning.

A first selection was made by screening titles and abstracts, after which 89 publications remained. In the next step also the complete articles were analysed according to the criteria set above.

Studies were omitted when they focus:

(a) only on learning by older people without workplace context;
(b) on retired people and their learning;
(c) on older peoples' learning only from an organisational perspective (e.g. research on early retirement policy).

Due to these strict criteria, four publications remained for analysis.

3.3.1.3. *Phase 3: analysis*

Two central questions were formulated to help to structure the analysis and get information to develop a theoretical framework.

The guiding questions for the analysis of the selected literature were:

(a) how does the study conceptualise 'learning' and what types of learning are examined?

(b) what factors influence learning by older workers?

3.4. Findings

In the following we present the reviewed studies and describe their research goals, their methodological approaches, an overview of the conceptualisation of older workers' learning and the findings of these studies.

3.4.1. **Specific focus of the studies and empirical approaches**

To be able to understand and interpret the theoretical concepts of the studies it is necessary to summarise their main goals. Table 3:1 presents the reviewed studies.

Table 3:1 **Aim of the studies**

Studies	Focus of the study
(1) Fuller and Unwin (2005)	to study older workers' attitudes to learning and its relevance to their jobs and to determine whether or not there is a relationship between learning at work and organisational change
(2) Tikkanen et al. (2002)	to identify learning processes, to examine whether there is a difference between older and younger workers
(3) Paloniemi (2006)	to explore employee conceptions of the meaning of age and professional experience
(4) Delahaye and Ehrich (2006)	to identify learning processes and activities critical to growth

Study 2 (Tikkanen et al., 2002) is a broadly based project on lifelong learning. We only used the data on older workers' learning conditions and determinants. This study is the only one that focused on the question of how older workers learn. Studies 1 and 3 focus on older workers' attitudes towards learning. Further, two studies examine determinants such as

organisational change (1) and professional experience (3). The fourth study tries to identify those factors that are critical for learning.

All the studies were conducted in work settings, but they use different research methods. Studies 3 and 4 use semi-structured interviews: in study 3 the author distinguished between different levels and, therefore, conducted both individual and group interviews. Study 2 used questionnaires and interviews. In study 1 a multi-layered case study approach involving interviews, structured learning logs, surveys and observations was conducted. This methodological diversity shows considerable variation in the perspectives on older workers' learning.

3.4.2. **Outcomes of the studies**

Despite the different approaches of these studies, the findings have much in common. Table 3:2 presents the outcomes.

Table 3:2 **Outcomes of the studies**

Studies	Outcomes
(1) Fuller and Unwin (2005)	• older workers prefer learning on-the-job and learning from colleagues • they have a positive attitude towards learning if it is relevant for their job • organisational change influences older workers' learning • they prefer formal training when they want to make career steps
(2) Tikkanen et al. (2002)	• older workers prefer practice-based-learning and training • the participation rate of older workers in formal training is lower than of younger workers
(3) Paloniemi (2006)	• age is not seen as a positive factor in developing various context and task-related factors • age is seen as a positive factor with regard to experience and practical knowledge • age is seen as a negative factor with regard to formal, education-based knowledge • age is seen as a neutral/positive factor with regard to personality-based knowledge and metacognitive knowledge • learning from experience is important
(4) Delahaye and Ehrich (2006)	seven learning processes are identified: negative construction, passive learning, modelling, direct guidance by experts, experimental learning, individual practice, advice and help from peers

Studies 1 and 2 found that older workers prefer learning on-the-job and practice-based learning. The number of participants in formal training decreases with increasing age (study 2) and formal training is preferred for getting ahead (study 1). In study 1 older workers stated that they prefer learning from colleagues. Another important factor is the attitude of older workers towards learning. In study 1 the researchers found out that older workers think positively about learning if it is relevant for their job. In study 3 increasing age was seen

as both positive and negative for learning: positive with regard to experience and practice-based knowledge, and negative concerning formal, education-based knowledge. This means that older people, in contrast to the young, have gained more experience and practice-based knowledge which helps them to learn new things. However, they think negatively about learning opportunities in formal settings, in which they perceive their age to be an obstacle for learning. A neutral or positive factor is the increasing self-awareness and metacognitive knowledge, as in knowledge of their strategies to learn. Study 1 suggests that organisational change influences learning. In study 4, seven learning processes were identified: negative construction, passive learning, modelling, direct guidance by experts, experimental learning, individual practice, and advice and help from peers.

Summing up the outcomes of the studies, we found several important aspects of older workers' learning: preference for practice-based learning, importance of contextual factors for learning, importance of individual determinants such as experience or personal attitude, and the relevance of the help of colleagues for their learning. Older workers do not only judge their age as a disadvantage, but also recognise that age leads to more practical knowledge. A higher target orientation (seen as a positive factor of age) is obvious in study 1: a positive attitude towards learning things that are relevant to their job and a preference for formal training when it is useful to their career. Further, focus on effectiveness (Fuller and Unwin, 2005) is an important individual factor and should be part of the theoretical framework. Another interesting point is that older workers prefer 'learning from colleagues', which is interpreted as a collective learning process. Older workers have a negative attitude towards formal learning settings which focus on individual learning. The distinction between individual and collective learning should be included in the theoretical framework as well.

3.4.3. Definitions of learning and types of learning

The definitions of learning and the types of learning used in the studies are listed in Table 3:3. The middle column presents the conceptions of learning, while the right column describes the categories of learning applied in the studies.

The studies in our final sample are based on different concepts of learning. Study 1 focuses on the 'learning as participation' metaphor: learning is defined as participation at the workplace. In study 2 learning is defined in more detail. This study defines learning as a lasting change in behaviour: measuring this change requires longitudinal research. Study 3 focuses on learning as development of competence. Study 4 defines learning as a process.

Table 3:3 **Definitions of learning and categories of learning**

Studies	Definition of learning	Categories of learning
(1) Fuller and Unwin (2005)	(opportunities for) participation	formal, informal, reactive, deliberative
(2) Tikkanen et al. (2002)	lasting change in behaviour, which does not necessarily imply an awareness of this change	formal, informal, non-formal, on-the-job
(3) Paloniemi (2006)	development of competence	–
(4) Delahaye and Ehrich (2006)	learning as a process	–

Categories of learning are defined in studies 1 and 2. The definitions of formal, informal and non-formal are, however, not clear. Informal training and on-the-job training are used synonymously. In studies 3 and 4 no categories of learning were identified. None of the studies conceptualised learning. Learning is defined, but a detailed description of the learning process is missing. The studies hold a broadly based view of learning and, therefore, collect a lot of data without a specific focus.

3.4.4. Variables influencing learning by older workers

Table 3:4 shows some common factors that influence learning by older workers, identified in the studies.

Organising the workplace was the focus of interest in studies 1, 2 and 4. The findings of these studies support the idea that the workplace as a learning environment is important. Study 4 points out the importance of a supportive character of the workplace. Support means that the workplace itself aids learning, for example through an intranet, professional journals, time for trainings, etc. Study 1 revealed to what extent changes in the work situation influence learning at the workplace. There is a positive correlation between changes in the work situation (a change from assembly-line work to team work) and learning.

Table 3:4 **Influencing factors**

Studies	Determinants influencing learning of older workers
(1) Fuller and Unwin (2005)	work organisation
(2) Tikkanen et al. (2002)	• attitude • organisation of the workplace
(3) Paloniemi (2006)	attitude
(4) Delahaye and Ehrich (2006)	• context: supportive character of the workplace • motivation

Other important factors were the attitude and motivation towards learning. Attitude was shown to be important in studies 2 and 3. Study 4 concluded that motivation is a key factor influencing learning by older workers.

Summing up, we can distinguish between characteristics of the workplace and of the individual (such as experience, attitude towards work or learning and motivation): both have to be part of the theoretical framework as possible determinants of older workers' workplace learning.

3.5. Considerations for a theoretical model

The analyses above suggest that most of the studies do not present a clear definition of learning and learning categories. Concepts such as informal learning and on-the-job learning are often used interchangeably and simultaneously: it is not clear how these concepts have to be interpreted. But the reviewed studies gave useful insight into the existing concepts of older workers' learning and research terminology. Research on older workers' learning at work is often a by-product of empirical studies on different topics such as workplace learning or lifelong learning. The literature review gave useful hints for conceptualising and putting in place workplace learning.

The analyses of theories on age and learning and the literature review indicate aspects that have to be considered when developing a theoretical framework on learning for older workers.

Focus on a specific profession permits an age limit for 'older workers' to be defined. 'Older' in this context means that people have worked a certain period of time and have accumulated various experiences. Therefore, age is not seen as a chronological phenomenon, but approached from a biographical perspective.

The individual is seen as the entity where learning processes take place and, therefore, has to be the unit of analyses. Learning is seen as a process. A problem, feedback or an error can be possible triggers for learning to happen (Kolb, 1984): then a process starts whereby knowledge is acquired. The acquired knowledge is memorised and either new experience is gained or existing experience is modified (Gruber, 1999; Kolodner, 1983).

We distinguish between cognitive learning activities, such as reflection, and physical learning activities such as using the Internet. Further, the distinction between collective and individual learning is important. Older workers seem to prefer learning from colleagues and friends (Tikkanen et al., 2002; Fuller and Unwin, 2005).

In the literature review we also looked for possible determinants of older workers' learning. As presented in Table 3:4, factors that influence learning can be divided in two major groups: individual factors and contextual factors. Both are important for workplace learning and the learning process itself. As Kolb (1984) states, the learning process is an interaction between the individual and the context. Determinants at individual level include experience and having learning goals. Learning is connected with a specific aim such as being upgraded or connected only with the career (former, current and future career) (Fuller and Unwin, 2005). Age perceptions, motivation and attitude towards learning are relevant individual factors as well (Delahaye and Ehrich, 2006). Contextual factors of interest comprise workplace conditions and team climate (Fuller and Unwin, 2005; Tikkanen et al., 2002).

The definition of 'old' and the relevant aspects of learning processes for older workers have to be considered in the development of a theoretical framework. The same is true for other determinants mentioned. The proposed theoretical framework should, therefore, combine definitions of learning and age with possible determinants of learning at an individual, work/job and organisational level. Promising research opportunities exist in further developing this framework and validating it in empirical studies.

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4. How silver learners can be silver workers: individual differences in the relationship between age and learning/work performance

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ABSTRACT

As a result of demographic change and the shortage of specialists in many fields, workers beyond the traditional retirement age of 65 (silver workers) are increasingly in demand and their number is consequently growing in many industrialised countries. This raises questions related to their performance, learning abilities and required competences. It also leads to a more fundamental debate on conditions that enable older people to remain productive and adaptive beyond the traditional age of retirement. This chapter presents some theoretical approaches which, if combined, may lead to useful insights into the performance of silver workers.

4.1. Introduction

Over the next few decades, Europe will face a serious reduction in its working population, defined as the population between 25 and 65 years old. This may have implications for economic growth, which is required to maintain prosperity. While both internal migration and immigration may be key factors in dealing with this problem, we focus here on another aspect, which might be less sensitive to the effects of migration and, therefore, more difficult to resolve: the need for specialists and experts required in a society that increasingly becomes a knowledge-based society.

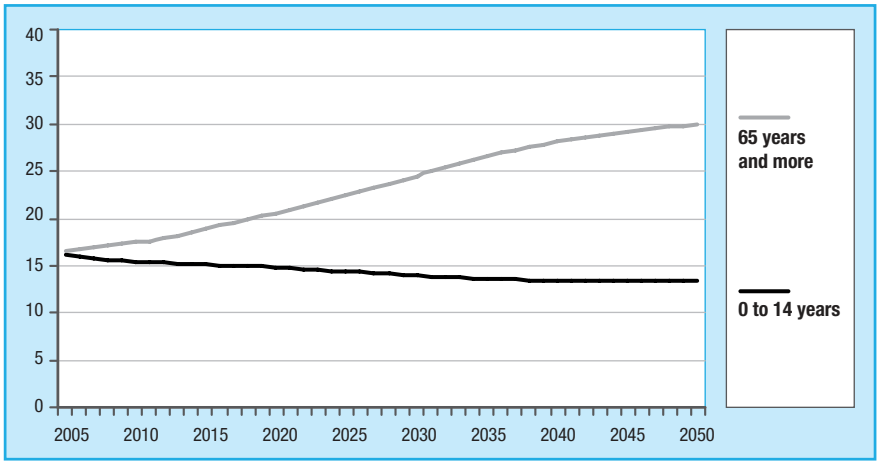
4.1.1. Demographic ageing as a pan-European trend

Higher life expectancy and a simultaneous decline in birth rates have led to population ageing in developed countries. In this context an increase of

13.3 percentage points (from 16.7 % in 2006 to 30 % average in EU-27 in 2050) of the proportion of older people (65+) among the total EU population is projected for 2050 (Eurostat 2008, p. 23). Figure 4:1 shows this trend.

The severity of population ageing can be seen in the development of the old-age dependency ratio, which is defined as the ratio of the number of people aged 65 and over compared to the number of people between 15 and 64: this ratio grows to more than 50 % by 2050. For every two people between 15 and 64, there will be one person 65 or older.

Figure 4:1 **Population projections, EU-27 (% of total population)**



Source: Eurosat (proj_tbp_pop).

Demographic change does not only involve an increase in the percentage of older people but also a reduction in the number of younger people. Projections show that the proportion of people under 25 years of age will decline from 30 % of the total population in 2000 to 23 % in 2050.

Combining these two trends results in a reduction of the working age population (aged 25-64). From 2040 onwards the working age population will represent less than half the total population (Cedefop, Descy, 2006, p. 71).

4.1.2. Evolution of the recruiting pool for specialists

Literature is inconsistent about what constitutes a specialist and often overlapping with what defines an expert. Ericson (2000) defines a specialist as someone who has to be able to solve problems in his or her specific field (compared to an expert who has to know its solution) and that this typically requires a minimum of 10 years of consistent practice in a particular field.

The decline of the working age population inevitably also implies an increasing shortage of specialists. But it is not only demographic change that is responsible for the increasing shortage of specialists: other factors also play important roles.

For decades, general employment policies stimulated early retirement and demoted older workers to a marginal group of the employment market, creating a considerable unused potential in most industrialised countries. This policy was, in part, initiated by the aim of cushioning the effect of the declining

Table 4:1 **Employment rates for selected population groups (% of total population)**

	Male		Female		Older workers	
	2001	2006	2001	2006	2001	2006
EU-27	70.9	71.6	54.3	57.2	37.7	43.5
Euro area	72.0	72.6	52.4	56.7	35.1	41.7
BE	68.8	67.9	51.0	54.0	25.1	32.0
BG	52.7	62.8	46.8	54.6	24.0	39.6
CZ	73.2	73.7	56.9	56.8	37.1	45.2
DK	80.2	81.2	72.0	73.4	58.0	60.7
DE	72.8	72.8	58.7	62.2	37.9	48.4
EE	65.0	71.0	57.4	65.3	48.5	58.5
IE	76.6	77.7	54.9	59.3	46.8	53.1
EL	71.4	74.6	41.5	47.4	38.2	42.3
ES	72.5	76.1	43.1	53.2	39.2	44.1
FR	69.7	68.5	56.0	57.7	31.9	37.6
IT	68.5	70.5	41.1	46.3	28.0	32.5
CY	79.3	79.4	57.2	60.3	49.1	53.6
LV	61.9	70.4	55.7	62.4	36.9	53.3
LT	58.9	66.3	56.2	61.0	38.9	49.6
LU	75.0	72.6	50.9	54.6	25.6	33.2
HU	62.9	63.8	49.8	51.1	23.5	33.6
MT	76.2	74.5	32.1	34.9	29.4	30.0
NL	82.8	80.9	65.2	67.7	39.6	47.7
AT	76.4	76.9	60.7	63.5	28.9	35.5
PL	59.2	60.9	47.7	48.2	27.4	28.1
PT	77.0	73.9	61.3	62.0	50.2	50.1
RO	67.8	64.6	57.1	53.0	48.2	41.7
SI	68.6	71.1	58.8	61.8	25.5	32.6
SK	62.0	67.0	51.8	51.9	22.4	33.1
FI	70.8	71.4	65.4	67.3	45.7	54.5
SE	75.7	75.5	72.3	70.7	66.7	69.6
UK	78.0	77.3	65.0	65.8	52.2	57.4
HR	:	62.0	:	49.4	:	34.3
TR	69.4	68.1	26.3	23.9	35.8	30.1
IS (1)	:	86.9	:	80.5	:	84.3
NO	80.7	78.4	73.6	72.2	65.9	67.4
CH	87.6	84.7	70.6	71.1	67.1	65.7
JP	80.5	81.0	57.0	58.8	62.0	64.7
US	79.4	78.1	67.1	66.1	58.6	61.8

(1) 2005 instead of 2006.
Source: Eurostat, 2008.

economies of the 1970s on unemployment among younger people. Initially perceived as disastrous, many older workers soon considered early retirement a well established and rightly earned privilege (Claus, 2008). In 2001 the OECD-average of people working at the age of 55 to 64 was just 37.7 % of that group. In response to the increasing need for (skilled) workers, this number increased to 43.5 % in 2006 (Eurostat, 2008, p. 248; Table 4:1) but even though this indicates a positive development, more than 50 % of the people between 55 to 64 remain inactive and are often considered to be difficult to employ.

Many workers in this group are, by nature of their age and careers, specialists. But often this is held against them. Their background, especially their consistent build-up of knowledge, skills and competences in a specific field, is considered as making it difficult for them to adapt flexibly to the sometimes rapidly changing needs of the labour market (Thijssen, 1992; Thijssen and van Heijden, 2003). While that may be true in certain cases, it is also often the result of stereotyping by employers.

Changes in society also dictate an increasing demand for specialists. Globalisation and the transition from an industrial to a knowledge society, and the increasing stress of international competition, lead to new tasks and challenges which require specialists. This generality is particularly the case in science and ICT.

Increasing life expectancy, the rising cost of living in general, and health care more specifically, as well as the adoption of lifestyles that make it difficult for people to save during their professional career make it important for people to remain professionally active longer than previously considered normal. While this is true for most segments of the population, we need to look into several questions about the definition of a specialist as well as about how he or she can obtain and retain specialist status, not only throughout a traditional working career but also beyond the traditional age of retirement.

In summary, the employment of workers beyond the age of traditional retirement may help to compensate for the increasing shortage of specialists. To put such an employment strategy in place and to motivate people to participate in the labour market, it is important to think about more flexible working models that enable silver workers to combine work with more free time. That seems to be the common concern of older workers. But to make such a strategy also successful in terms of output we must understand performance and learning at advanced age. Work-related performance plays a special role in this context. Research into characteristics of expertise indicates a strong correlation between work

experience and above-average work performance (Ericson et al., 1993). Therefore, the role and effect of expertise in work performance must be investigated. More specifically, we need to look into the specific cognitive and professional competences required for specialist problem solving ability. As well as technical competences, these also include social, methodological and personal competences (Baethge and Baethge-Kinsky, 2004; Jungkunz and Schwadorf, 2003). What is the role of (self-directed) learning in this context? Are there not only different types of competences but also different forms of how to maintain and develop them beyond traditional retirement age? How do silver workers measure up to younger colleagues? What is the value of experience? Which circumstances are favourable, which are unfavourable?

4.2. Performance and learning in advanced age

4.2.1. **Mental performance at advanced age**

For a long time, and based on American intelligence studies of the 1920s and 1930s, performance at advanced age has been understood in terms of a deficit (Jones and Conrad, 1933; Miles, 1934). This model, which is also known as the traditional shortfall model of decreasing intelligence at advanced age, is refuted almost unanimously by today's gerontological, psychological and andragogical research perspectives for different reasons.

The American intelligence studies of the 1920s and 1930s drew their conclusions about decreasing intelligence at advanced age based on cross-sectional studies involving different individuals at different ages. These studies inevitably deal with different initial social situations and, therefore, go no further than empirical conclusions about inter-personal differences (differences between individuals). No empirical evidence about intra-personal differences (differences occurring in an individual's life span) can be drawn.

More recently conducted longitudinal studies – which unlike cross-sectional studies allow for conclusions about intra-personal differences – point out that performance is primarily related to individual learning biography and not to biological age (Schöpf, 2007). Thus, the ability to memorise and abstract thinking does not dramatically decrease with age, especially for people with higher educational attainment levels.

Results of the longitudinal study carried out in Gothenburg (Steen and Djurfeldt, 1993) as well as the gerontological longitudinal study conducted

in Bonn (Lehr and Thomae, 1987) support this insight. A famous Seattle longitudinal study, which focuses on biological aspects of ageing, also supports this result establishing the age stability of all important mental skills up to the age of 75 (Schaie, 1995; 1996).

However, the traditional shortfall model is based on an undifferentiated, general understanding of intelligence, without considering its different dimensions. The theory of fluid and crystallised intelligence developed by Horn and Cattell (1966) emerged as a much more powerful model of intelligence and the ways it is related to age. The general concept of age-related decline was not defendable any longer.

Fluid intelligence – shown as the ability to find meaning in confusion and to solve new problems – decreases from the age of 30 onwards, while crystallised intelligence – shown as the ability to use skills, knowledge, and past experience – remains stable over the life span or may even increase under the right circumstances (Kubinger and Jäger, 2003).

Baltes and Baltes (1990) extended the theory of fluid and crystallised intelligence with intelligence dimensions 'fluid action' and 'crystallised pragmatics'. Fluid action does not just consider the structure of our cognitive system but also the connected processes of problem-solving. Crystallised pragmatics, in contrast, deals with applying fluid action to knowledge systems in a social context. Those pragmatic intelligence dimensions can only be measured by analysing changing structures and the functions of individual knowledge systems. The continuous use of specific cognitive strategies, and their differentiation, can lead to expertise at advanced age. According to Baltes and Baltes, explaining this process of attaining expertise requires going beyond basic understanding of fluid and crystallised intelligence by considering the added dimensions of fluid action and crystallised pragmatics.

Also, more biologically oriented studies about the speed of information processing have informed the debate about different intelligence dimensions. These studies focus on the assumption that decelerating cognitive processes is an indicator of ageing. According to the model of fluid and crystallised intelligence, cognitive functions which depend on speed need to be distinguished from cognitive functions which depend only on a knowledge base. Several studies emphasised the decreasing speed of information processing capacity at advanced age. Schaie (1995) for example identified the following primary-skills: oral understanding, fluent oral use, arithmetical skills, and reasoning. The factor oral understanding shows the highest age-stability while the factor fluent oral use – which

depends on speed – decreases from an early age onwards. Studies conducted by Birren and Fisher (1995) and Salthouse (1996) came to the general conclusion that the speed-factor plays the most important role in terms of cognitive performance changes at advanced age.

In summary, this differentiated view of intelligence, together with results of several longitudinal studies, permits a more precise perspective on individual development of intelligence with age and has been responsible for today's renunciation of the shortfall model. Instead, distinctions between age-stable and age-variable factors have become commonly accepted (Bergmann, 2007; Warr, 2001).

As well as the general importance of individual learning biography, the following aspects are central (Rump and Eilers, 2007):

(a) the individual life story gains importance at advanced age; performance differences within a group of people at the same age are more common than between different ages;
(b) the social status as well as the professional and social overall context are crucial for performance motivation;
(c) a cognitive loss of power at advanced age is mostly the consequence of mental passivity and not simply caused by age;
(d) biological age plays a more important role on a psychomotoric level: it amounts to a general deceleration at advanced age;
(e) routines can compensate a decreasing working speed;
(f) increasing experience can affect the performance potential, both positively and negatively, depending on the type of experiential knowledge.

Findings on mental performance at advanced age and the distinction between age-stable and age-variable factors lead to important conclusions about the way older people learn. The concept of fluid versus crystallised intelligence, for instance, provides insights into how the reduction in fluid intelligence causes age-related deceleration of learning while the age-stable crystallised component of intelligence results in a specific consistency of knowledge (Lehr, 2007).

The following characteristics of learning at advanced age can be pointed out:

(a) a high learning motivation and a clear learning purpose are increasingly important with age;
(b) the learning activity is crucial: the more learning is connected with action the better are the results. The meaning of case and practice oriented learning, and a holistic learning approach, gains importance;
(c) high speed teaching can lead to congestion. It needs to be considered

that mental processes at advanced age run slower but also more profound. Disregarding this issue often causes obstacles;

(d) a clear structure of knowledge supports learning processes at advanced age: learning habits of older people were developed in times of frontal learning. This preference for logical structures increases at advanced age;

(e) older people learn more easily in larger chunks than in little segments;

(f) learning at an advanced age is characterised by a high sensitivity to interference (Rump and Eilers, 2007).

4.2.2. **Work performance at advanced age**

Alongside general mental performance, research has addressed the relationships between age and work-related performance.

The meta-analysis suggests that the correlation between work performance and age varies around zero, although there is significant variability depending on the used performance indicator (Waldmann and Avolio, 1986). Taking productivity as an indicator gives a slight increase in performance with age, while taking the superior's assessment as a performance indicator shows a slight decrease in performance (Waldmann and Avolio, 1986).

Work performance depends greatly on experience, so the results of the psychometric measurement of intelligence with its isolated consideration of age-stable and age-variable factors cannot simply be transferred to performance related to work (Bergmann, 2007, p. 61).

Research into characteristics of expertise indicates the important link between work performance and experience: continuous above-average work performance requires extensive expertise, typically based on at least 10 years of work experience in a specific field (Ericson et al., 1993).

The concept of 'work-induced ageing' implies either an expansion or a deceleration of ageing processes depending on working conditions (Teiger, 1989; Warr, 1994). Tasks with no or few learning requirements can lead to degeneration of skills, which implies accelerated ageing, while tasks involving advanced learning requirements can decelerate the ageing process. Similar results are emphasised by studies of the Institut für Wirtschaftsforschung Halle (IWH – Halle Institute for Economic Research), which related work performance to different types of work: blue-collar workers, white-collar workers and the self-employed. These results indicate a negative ageing trend for blue-collar workers and – to a smaller extent –

for white-collar workers while no decrease of productivity was found for the self-employed (IWH et al., 2006).

Current knowledge about mental and work performance at advanced age has implications for our understanding of what older workers can achieve and under what circumstances they can do so. Therefore, the concept of a competence model provides an alternative to the shortfall model. It indicates specific competences at advanced age, which can be different from competences at earlier life stages. The negative effects of advanced age on some cognitive tasks are not dismissed, but compensation mechanisms are emphasised. It is crucial to understand that work performance at advanced age does not necessarily deteriorate (Richenhagen, 2003, p. 6).

4.2.3. Feedback loops between mental and work performance

Both mental and work performance strongly correlate with experience. From a systems perspective, mental and work performance interact in a positive feedback loop. Work performance in terms of behaviour results from processing external input through mental operations while increased mental performance results, among other elements, from using work performance as input for learning. The result is a complex learning system that uses the output of both the mental and the work processes as input. The changes that we relate to ageing are the result of the processes taking place within this complex system.

Biological constraints and changes are often induced by environmental factors and are part of this system. According to Goldberg (2005), we experience for example a shift from right to left hemispherical dominance. It is clear that such a shift has a substantial effect on our mental competence which includes – Goldberg follows Sternberg in this respect – not only cognition as such but also creative and social components (Goldberg, 2005).

In general, knowledge 'is a nominalisation which describes the processing of experiences formed by specific strategies and stored in long-term memory' (Brown-Vanhoozer, 1999). A specialist is capable of using this knowledge as input to a problem-solving strategy.

The model of fluid intelligence versus crystallised intelligence implies changes in the mental processes that impact on the mental/work feedback loop. In general, the behaviour of the system gradually shifts from building experience to using it. With this shift comes a shift from a traditional 'narrow and deep' model of specialist knowledge to a 'broad and shallow' model that is often associated with wisdom. This implies that ageing changes the

nature of specialist knowledge, allowing for a more generic approach to problem solving. Similarities become more important than differences. As crystallised intelligence becomes more dominant in the mental process, the ability to recognise the similarities in the differences also increases.

Ageing makes it possible to take in larger chunks of time and space. Singular events – taking place at a specific time in a specific place – increasingly form patterns and this is crucial in correctly anticipating the effects of actions taken. Not only are problems fixed but structural causes of problems are identified and remedied. The scope of the context in which problems are solved broadens. Causes that are remote in time or space are considered.

Whether or not language is essential for pattern recognition, as Goldberg would have it, remains an open question. But he is absolutely right when he claims that patterns function as attractors for new information (Goldberg, 2005).

4.3. Implications

4.3.1. **Systems thinking**

In general, performance is affected by several factors. Nickols (2003) lists the following seven:

(a) goal clarity: clear understanding of what needs to be achieved;
(b) repertoire: a set of behaviours required to attain goals despite changing circumstances and environmental disturbances;
(c) knowledge of structures (or patterns): an understanding of the elements that make up a situation and of how those elements are connected, their relationships and interdependencies;
(d) feedback: in this context the information needed to know if the goal is being reached or not, to decide whether corrective action must be taken, etc.;
(e) mental models: the internal models representing the context of the problem;
(f) motivation: the reasons for not only knowing how to do things but for actually wanting to do them;
(g) environment: the external conditions promoting or prohibiting performance.

While these apply to individuals in the workplace, they also apply to the system, to the workplace as a whole, including its relationship to the

external environment. A major systems implication of what we introduced earlier in this chapter is that the interaction of younger and older specialists provides for:

(a) better integration of short-term and long-term goals;
(b) a larger repertoire of possible actions, including both well tested strategies and ad hoc experimental approaches;
(c) greater sensitivity to the effect of actions based on better understanding of causation based on the recognition of patterns;
(d) a wider range of mental models, including deep and narrow as well as broad and shallow ones.

While the threatening shortage of specialist workers may be a reason to look into the possibilities for (re)employing silver workers beyond the traditional age of retirement, the properties of the complex social, cognitive and economic systems in which they operate may turn out to yield unexpected beneficial effects.

To understand those, we must acknowledge that expertise and specialist knowledge do not exist in a vacuum. Because it makes no sense to view silver workers as mere substitutes for younger ones, an organisation's ability to integrate younger and older specialist workers has an effect on its ability to solve problems immediately as well as structurally.

What is at stake is not so much the work performance of the individual silver specialist but the effect of the presence of such a specialist on the work performance of the whole organisation in which he or she participates. This effect may well be above and beyond the mere solution of the problem of an increasing shortage of specialists.

Before we move into more specific implications of the model outlined above, for employment policies at macro level and teaching and training programmes at micro level, we need to stress the importance of moving from a linear to a systems approach to the role of silver workers. In systems thinking, constitutive elements of a (problematic) situation are not approached as isolated from one another, but rather as connected and interdependent. While this is not the place to reflect on the theoretical context of a system approach, it may nevertheless be useful to summarise a few of the most important features of complex systems and analyse how they relate to the topic at hand:

(a) large effects of small changes: the presence of even a few silver workers may have a beneficial effect on the organisation as a whole. Management must learn to recognise these effects and to support them;

(b) boundaries indicate distinct parts of a system that have similar characteristics. It is important that silver workers do not get separated from the rest of the organisation. Information tends to get distorted across boundaries, making communication difficult, if not impossible. Language plays an important role here, as do tools for communication. It is, for example, all too easy to create a boundary between those who are and those who are not expert users of ICT;
(c) transforming feedback: the interaction (feedback) between younger and older workers must contribute to changing both. The transforming effect should not be one-directional. In this context it is important that silver workers accept that they can also learn from younger colleagues;
(d) attractors are pattern of behaviour that may not be noticed when looking at individual cases. They only become visible when we adopt a system-wide perspective. To value the importance of silver workers, we need to look at their effect on the whole organisation. However, it is also important to recognise the patterns of behaviour that contribute to a negative attitude towards older workers to break away from them;
(e) self-organisation is the property of a system that causes it to (re)organise itself when new elements are introduced or when the interdependencies among the elements change. The introduction of silver workers may trigger this property in an organisation. It is important to recognise the power of self-organisation and to recognise that a system tends to settle in a state of low energy. Any attempt to change that state will require the input of energy;
(f) coupling in a system refers to the effect that subsystems may have when they are attached to each other. Coupling younger and older workers should provide maximum freedom and maximum security for both.

4.3.2. **Macro level: employment policies**

Employment policies focused on the accelerated exit of older workers to the benefit of younger ones contributed greatly to the increasing shortage of specialist workers. Changes in employment policy could, and should, contribute to reversing that trend.

It is clear that just turning the clock back will not suffice. Not only do we want to keep specialists active beyond the traditional age of retirement, we also want to keep their specialist competences up-to-date and available until the end of their professional career. In the next section we focus on the implications on learning and training of the fact that these competences

are, in many respects, different from those of younger colleagues and should be valued and put to use as such. Employment policies should contribute to creating a climate in which specialists and employers consider it meaningful to continue investing in developing competences.

Older workers themselves indicate that they experience the abrupt end of a working career as problematic. In general they would prefer a much more phased transition. Flexible, phased retirement is, therefore, an important tool to keep specialists active. The phasing options should include different dimensions: temporal, spatial, content-related, and financial. The specifics of the phasing should depend on the individual situation and be sufficiently flexible to be adapted to individual needs and wishes (Seitz, 2007).

The temporal dimension of an employment policy includes empowerment about how much time is spent working, as well as about when that time is allocated. The spatial dimension refers to the possibility to do more work from home, not only reducing the time, effort and cost of commuting to work, but also fading in to a situation where, after full retirement, time is spent almost exclusively at home. The content dimension refers to the nature of the work being performed towards the end of one's career. No phased retirement policy will succeed if its financial implications are not at least neutral. At this point many countries negatively sanction work beyond formal retirement, either in terms of tax treatment or the effect on pension received. Often there also exists a negative effect of a decreased workload in the period just before retirement, in cases where the pension received depends mainly on the income earned in the last phase of employment.

A final remark on policies has to do with the role of trade unions who traditionally do not appreciate individual arrangements and, as a result, often resist legislative changes towards more flexibility. They are beginning to realise that change has become inevitable. As John Philpott, Director of the Employment Policy Institute, put it, 'the new economy is a real phenomenon that will become more prevalent over time. You will get an overall reduction in manufacturing employment. Virtually everything left will be knowledge-based. Unions will need to organise themselves in different ways. The new economy is more individualistic. Workers may not be self-employed but they see themselves as individual units. They work in one place for a short time and prefer to look after their own interests' (Davison, 2000).

4.3.3. **Micro level: further education and training**

In a rapidly changing knowledge society, the value of specialist knowledge and expertise depends on the ability to keep it current. This implies that,

while fluid intelligence is typically decreasing as one gets older, the ability to build new experience should be retained. Because of the constraints of the system, this new experience should be constructed based on essentially crystallised intelligence.

It is essential for older specialists that new information is presented against the background of the patterns they constructed throughout their careers. If those patterns, which act as attractors, are not sufficiently complex, strong and stable to include the new information, training must focus on changing the patterns rather than on the details of the new information.

But since new information cannot be avoided, and since new details are not as easily remembered as they were at a younger age, appropriate teaching and learning strategies must be put in place to memorise them to keep the knowledge base that is typically required for specialist work performance up to date. Recent research by Carol Barnes and colleagues (Jason et al., 2008) at the University of Arizona indicates that the changing role of sleep may be crucial here. In younger people sleep provides mechanism for mental repetition of events and information, a mechanism that is gradually lost as one gets older. As a result the repetition required for memorisation must be performed much more explicitly.

This is an area where new media may play an essential role: Not only can appropriate software help with the memorisation process, appropriate ICT skills and search strategies and the increasing availability of mobile devices and online information make learning or information on demand an attractive alternative. So, while advanced ICT skills are typically associated with younger workers, it may actually be the older specialist workers for whom they have an added value. Investing in the ICT skills of senior specialists before they retire – thereby not giving in to the perception that these will of little or no use for them given the advanced stage of their career – is, therefore, a sensible investment that may contribute to a constructive working relationship beyond the traditional age of retirement. This is consistent with research indicating that lifelong learning should not just focus on work-based learning but should also include formal training programmes for older workers (Cedefop, Paloniemi, 2006).

There is another angle to the further education and training aspect of including silver workers, namely their role as trainers, coaches and mentors for younger workers. Training is not assigned to the repertoire of most silver specialists and yet that may be essential in creating value for the organisation in which they participate. For most organisations, therefore, it makes sense to invest not only in keeping the knowledge base

and repertoire of their silver specialists current, but also in their training as trainers, coaches and mentors, even when they are not required to perform in a formal training programme.

4.4. Conclusion

Systems thinking provides a background against which we can understand how the impact of the presence of silver workers in an organisation may have an effect that stretches way beyond merely solving the increasing shortage of specialists. This effect can exist precisely because of the qualitative differences between younger and older workers. These should not be viewed in terms of deteriorating competences but in terms of changing competences.

The age-related reduction in fluid intelligence and the stable crystallised component of intelligence create a context in which teaching strategies and learning techniques consider the age of the participants. Doing so is important, because further education and training of silver specialists is essential in creating value for the organisation in which they perform.

Employers who want to keep their specialist employees performing up to the traditional age of retirement (and, increasingly, also beyond that age) need to realise that, to do so, they not only need to focus on silver specialists but also create an environment in which all their workers can build the individual learning biography required for lifelong performance based on lifelong learning.

There is also a message for governments. They are not only responsible for creating a legislative setting in which organisations have the tools to motivate their specialist workers to continue as silver specialists, but should also create the educational setting that establishes a climate for lifelong learning starting well before the typical age of a first professional position and continuing beyond traditional retirement. Training silver specialists as trainers, coaches and mentors is an essential element in such a programme.

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PART II

Ageing, learning and working in Europe: perspectives from cross-national research

Do seniors receive compensation for working in high-demand environments?
Pascale Lengagne

Matching individual and organisation needs to enable longer working lives
René Schalk

Flexibility and security for older workers: HRM-arrangements in four European countries
Frank Tros

5. Do seniors receive compensation for working in high-demand environments? ([1])

Pascale Lengagne

ABSTRACT

Faced with challenges in pension financing, European governments adopt measures aimed at increasing the employment of seniors. One of these measures consists of providing financial incentives to induce seniors to remain in the workforce. But the efficiency of this kind of measure could be relatively limited: if seniors are not satisfied with the reward they receive at work, they could be inclined to retire as soon as possible. Within this context, it is interesting to look specifically at the notion of perceived reward at work and the different associated factors.

We provide an analysis of the relationships between seniors' perceived rewards at work and particular factors reflecting working conditions that induce health risks. Our purpose is to determine whether seniors receive compensation for working in high-demand environments. The latter are measured using the two following dimensions: exposure to a constant pressure due to a heavy workload and the degree to which jobs are physically demanding. We use data from the first two waves of the survey on health, ageing and retirement in Europe (SHARE) carried out in 2004 and 2006.

We find that, among European senior workers, perceived reward at work is not significantly related to time pressure due to a heavy workload, *ceteris paribus* (by controlling some observed and unobserved variables). Thus there are no reward differences between seniors working under time pressure and those who are not concerned by this constraint; this result suggests that senior workers receive compensation for dealing with such a constraint. But the measure is an overall estimate that does not consider heterogeneous situations. Subsequent analyses by socioeconomic categories lead us into isolating groups who receive significantly less reward when they face time pressure due to a heavy workload. These groups are individuals working in firms with more than 24 employees, workers having a

([1]) With thanks to Frank-Séverin Clérembault for his relevant comments on this version.

high education level, workers whose income is above median, workers aged 55 or above, and women.

In addition, we show that physical demand and reward are negatively and significantly correlated for senior workers: when workers face this kind of constraint, people receive significantly less reward, *ceteris paribus*. This is particularly the case for those having a high education level, those aged 50-54, and women. Conversely, for workers having a low educational level, aged 55 or over, and men, we find no evidence of a relationship between a low reward and physical demand at work.

5.1. Introduction

In the current context, where populations are ageing and living longer, while the sustainability of pension funds is challenged, European governments have adopted measures aimed at increasing employment among older workers. One of these measures consists of providing financial incentives to encourage senior workers to remain in the workforce. But the efficiency of this kind of measure could be relatively limited. If older workers are not satisfied with the reward they receive for their efforts, they could be inclined to retire as soon as possible despite the financial incentives. One result from Blanchet and Debrand (2007) confirms this hypothesis: they estimate that the probability of wishing to retire as soon as possible increases by approximately six percentage points when workers feel that their salary is inadequate relatively to their efforts.

It is interesting to look specifically at the notion of perceived reward at work and associated factors for senior workers. The aim is to determine whether seniors receive an adequate perceived compensation for working in high-demand environments (notably proved to be a cause of health risks). We provide an analysis of the relationships between seniors' perceived reward at work and demanding working conditions. The latter are measured using two dimensions: being under constant pressure due to a heavy workload and having a physically demanding job. We use data from the two waves of the survey on health, ageing and retirement in Europe (SHARE) carried out in 2004 and 2006.

A strong association between demanding working conditions and a low (monetary or even non-monetary) reward at work could be particularly worrying for the balance of pay-as-you-go pension systems. In a context of work intensification accompanied by more work-related health risks, if senior

workers do not receive compensation for jobs that are increasingly demanding, they will be more likely to exit the workforce as early as possible.

The relationships between working conditions and monetary and non-monetary compensation at work have been widely studied but theoretical and quantitative analyses do not provide universal conclusions. The theory of equalising differences suggests that workers exposed to demanding working conditions receive salary compensation for this but, such working conditions, and other negative aspects of work, may not be compensated: one example is exposure to risks that are not recognised in the firm. Another explanation for a positive association between work risks and low perceived rewards could be that firms may not wish to retain their older employees and may try to encourage retirement; one way would be not to reward adequately their senior employees for being exposed to demanding environments. In his 'effort-reward imbalance model', Siegrist (1996) studies the concepts of reward at work, effort at work and their relationships with health status. An imbalance between effort at work and reward (high effort for low reward) exposes workers to considerable psychological stress, which leads to health-related problems such as cardiovascular diseases or even mental health issues. In this model, reward at work is a determinant of health but there is also the potential reverse causality, suggesting that health status can be a determinant for reward at work. Indeed, workers' health status impacts on labour participation and productivity (Grossman, 1972); poor health status can lead to an unfavourable socioeconomic position and can partly explain a feeling of low reward received at work in the long term.

This chapter is organised as follows. Section 5.2 presents our hypotheses. Subsequently, we review the data used and statistical methods. In Section 5.4, we provide a description of our research findings. The last section concludes.

5.2. Hypotheses

The study is based on three main alternative hypotheses that could explain the relationships between high-demand working environments and a low reward at work among older workers.

The first hypothesis proposes the existence of compensation for being exposed to harmful working conditions, which derives from the theory of equalising differences. Workers sell labour for salary and, at the same time,

they purchase non-monetary aspects of work such as having good working conditions. Assuming perfect information on job safety, this mechanism leads to a balance between wage and all fringe benefits from work and the employee's efforts at work and exposure to unfavourable working conditions. So, for workers, any degradation of working conditions would be adequately compensated. In that case, they would not feel any deterioration in their reward at work. There would be no relationship between unfavourable working environments and feeling low reward at work, *ceteris paribus*.

Various quantitative studies that examine the existence of equalising differences do not support this hypothesis (Dorman and Hagstrom, 1998). Rather, these studies find a negative or a non-significant positive relationship between wages and work risks. In addition, work-related injuries and illnesses induce a depreciation of wealth in the long term, as it has been shown especially by Galizzi and Zargorsky (2008). Their studies provide evidence that baby boomers' absolute wealth and wealth growth rates are strongly reduced if they are ever injured; it also shows that injured workers significantly reduce their consumption over time. But, there are also studies such as Saffer's (1984) and Gunderson and Hyatt's (2001) which find evidence for a positive correlation between wages and work risks and concur with the existence of wage compensation for risky jobs. These two studies stress the relevance of controlling for unobserved heterogeneity and an endogeneity bias in econometric models when conducting quantitative analysis on equalising differences. One of the explanations for empirical findings that do not support the theory of equalising differences is that data do not allow the identification of compensation for risky working conditions.

Researchers are faced with difficulties in controlling for unobserved heterogeneity that could bias their estimates. Unobserved heterogeneity can concern individual productivity, human capital, risk aversion or heterogeneity in the way working conditions are assessed (for studies using these kinds of data). Another source of heterogeneity explaining a positive statistical correlation between wages and work risks may be the existence of two main segments in the labour market: a segment in which workers have low wages and risky working conditions and a segment in which workers receive better wages and have better working conditions. An interesting way to control for these segments (that could not be observed) is the use of panel data. This type of data makes it possible to control for unobserved fixed effects induced by variables such as segments.

However, certain studies put forward the existence of an endogeneity bias (Gunderson and Hyatt, 2001). Wealth may have a negative impact on

the level of risk that workers are willing to undertake, since safety may be considered a normal good. This endogeneity leads to underestimating the positive relationship between wages and risks at work in studies applying a single equation model for the impact of working conditions on wages.

In a second hypothesis, we suggest that compensation for risky working conditions partly depends on the ability of employers and/or employees to identify these risks. It could be that, when risks are recognised, a residual fraction of harmful consequences of these risks escape the awareness of employers and/or employees. Indeed, these two parties may not know to what extent working conditions are harmful, which contributes to underestimating the risks of injuries and their consequences. In this case, workers will be undercompensated as risky work is not fully rewarded. The traditional balance between wage and working conditions will not be reached. Collective actions, unions or physicians can help to recognise and assess risks, to inform employers and employees, thereby addressing the information gap. However, regulation aimed at identifying risks is limited because many risks and injuries could be totally invisible, notably when the work-related causes of a disease cannot be established or are not noted by the medical profession. While certain risks are obvious (radiation, road accident or explosion), others, such as workload and psychosocial risks, are not.

As we have no indicator for the existence of objective risks in firms, in our study, we focus only on some risks that are perceived and identified by workers: potential physical demand at work and pressure due to a heavy workload (Table 5:3). We stress here that the differences between objective risks and perceived risks may be substantial, as perceived risks may be influenced by multiple factors such as the fact of having experienced harm caused by work in the past, optimism, etc. If people are exposed to risks but have never been personally harmed, they may be more likely to be optimistic about their working conditions and to declare safe working conditions. If, on the other hand, workers have suffered from their working conditions in the past, they will be more likely to recognise risks. However, the optimism in declarations of risks in the workplace, which is often advanced in economic studies dealing with worker perception of risks, may be assumed to be not very pronounced among senior workers, as these seniors benefit from detailed knowledge gained in long work experience.

One possibility is that perceived risks might be unrecognised at firm level, which could explain a positive association between negative working conditions and a low reward. This kind of externality may be exacerbated, since a perceived imbalance between demand at work and reward (a high

demand and a low reward) induces high psychological stress, which may in the long term lead to medical problems, such as cardiovascular disease or mental health issues (Siegrist, 1996). Several empirical studies indicate that this imbalance is linked with poor self-reported health (Ostry et al., 2003; Niedhammer and Siegrist, 1998; Siegrist et al., 2004), with cardiovascular disease (Bosma et al., 1998; Niedhammer and Siegrist, 1998), depression (Pikhart et al., 2004) and chronic diseases (Ostry et al., 2003). These results are also confirmed for senior workers (Debrand and Lengagne, 2007).

The third hypothesis concerns firms' behaviour. One possibility is that firms may encourage seniors to retire early, to reduce or renew their workforce (Hakola and Uusitalo, 2005). Firms may reduce senior worker rewards and consequently discourage them from remaining active. Our hypothesis is that the decreased reward may correspond to a higher pressure at work without adequate compensation in terms of salary, workers' perspective or recognition. In this situation, *ceteris paribus*, older workers would be more likely to feel they receive inadequate compensation when working in a high-demand environment.

5.3. Empirical strategy

5.3.1. **Data and indicators**

The analysis uses data from the survey on health ageing and retirement in Europe (SHARE) (Börsch-Supan et al., 2005) carried out in 2004 and 2006. In 2004, the survey covered roughly 30 000 Europeans aged 50 and over, living in the following 11 countries: Austria, Belgium, Denmark, France, Germany, Greece, Italy, the Netherlands, Spain, Sweden and Switzerland. SHARE is inspired by similar experiments such as the health and retirement survey (HRS) in the US and the British panel ELSA (English longitudinal survey of ageing). The data collected include health variables (self-reported health status, physical and cognitive tests, behaviour related to health and use of the healthcare system), psychological variables (mental health, wellbeing, satisfaction), socioeconomic variables (professional status, characteristics of professional activity, retirement age, financial resources, level of income, housing, education) and social support variables (family support, financial transfers, social networks, voluntary work, etc.).

The sample analysed in this chapter comprises 3 954 European workers aged 50 to 70 in 2004 who are still in the workforce two years later. 55.5 % of the workers are men and 53 % of the respondents are aged between 50 and

54 years. More than one in three respondents has completed a post secondary qualification. Most respondents have a technical, professional, support or sales occupation, the majority being employed in organisations with at least 25 employees. Respondents from Spain, Italy and Austria are less represented than those from Belgium, Greece and Switzerland (Table 5:1). This could be due to real differences in the employment structure of the labour force after 50 but also to the sample size and the response rate in each country ([2]).

The survey questionnaire contains several items on reward at work and working conditions also used in the models of Karasek and Theorell (1991) and Siegrist (1996) describing psychosocial work risks. The following sections describe these variables.

Table 5:1 **Structure of the sample**

Men 55.5 %			
Age in 2004		**Firm size in 2004**	
50 to 54	52.6 %	Self-employed	20.6 %
55 to 59	36.1 %	Firm size <25	34.1 %
60 to 70	11.2 %	Firm size>=25	45.3 %
Qualification		**Country**	
Primary and lower secondary	30.6 %	BE	13.5 %
Upper secondary	32.1 %	DK	8.8 %
Post secondary	37.3 %	DE	8.2 %
		EL	13.1 %
Occupation		ES	4.8 %
Occupation 1 *	34.5 %	FR	10.2 %
Occupation 2	37.6 %	IT	5.1 %
Occupation 3	11.3 %	NL	9.9 %
Occupation 4	12.7 %	AT	3.9 %
Occupation undetermined	3.9 %	SE	16.8 %
		CH	5.7 %

* These categories correspond to the international standard classification of occupations (ISCO)
1- Managers/professionals/armed forces occupations
2- Technicians and associate professionals/clerical support workers/service and sales workers
3- Skilled agricultural forestry and fishery workers/craft and related trades workers
4- Plant and machine operators and assemblers/elementary occupations

Source: SHARE 2004 and 2006.

([2]) For more details on the survey see Börsch-Supan et al. (2005) and SHARE project, available from Internet: http://www.share-project.org/ [cited 9.9.2009].

5.3.1.1. *Reward at work*

The indicator for reward at work is constructed from the answers to the three following items: 'I receive the recognition I deserve for my work'; 'considering all my efforts, my salary is adequate'; and 'my job promotion prospects are poor'. These items were all scored on a four-level scale indicating the respondents' opinion: strongly agree, agree, disagree or strongly disagree. All items provide information about the adequacy or inadequacy between the expectations of workers – in terms of salary, perspectives or recognition – and reality.

The synthetic indicator used is a dichotomous indicator which is defined by the following rule: for a worker who disagrees or strongly disagrees with the first two items and agrees or strongly agrees with the third item, the indicator is: 'Reward'=0; otherwise, the indicator is: 'Reward'=1. In our sample of workers, 14.8 % consider in 2004 that their salary is inadequate and that their promotion prospects and recognition are poor (Table 5:2). Two years later, this proportion decreases to 13.2 %; this decrease may correspond to a selection process in which senior workers who are rewarded at work are more likely to remain in the workforce than others. The analysis of individual transitions between 2004 and 2006 offers comparisons: a large part of workers rate the reward at work similarly in 2004 and 2006; 7.7 % of 'rewarded workers' in 2004 indicate a lower reward two years later; and 51.2 % of 'under rewarded workers' in 2004 perceive a better reward two years later.

Table 5:2 **Descriptive statistics on reward at work**

	In 2004	In 2006
'Reward' = 0 (under rewarded workers)	14.8 %	13.2 %
'Reward' = 1 (rewarded workers)	85.2 %	86.8 %
Total (n=3954)	100.0 %	100.0 %
Individual transitions between 2004 and 2006		
85.8 % of workers perceive the same level of reward in 2004 and 2006		
7.7 % of rewarded workers in 2004 perceive a lower reward in 2006		
51.2 % of under rewarded workers in 2004 perceive a better reward in 2006		

Source: SHARE 2004 and 2006.

5.3.1.2. *Working conditions indicators*

In our study, we focus on two items to describe working conditions: 'my job is physically demanding' and 'I am under constant time pressure due to a heavy workload'. As we see in Table 5:3, the prevalence of physically demanding job and time pressure due to a heavy workload decreases between 2004

and 2006. This could reflect a well-known age effect: older workers are often protected against risk exposure compared to their younger colleagues. Statistics from European surveys show they usually gain a higher degree of autonomy and a lower degree of work intensity.

If we look at the individual transitions, we see that most people indicate the same working conditions in 2004 and in 2006: 65.9 % of workers declare an identical degree of physical demand and 58.9 % perceive an identical degree of time pressure. But 22.3 % of workers having a physically demanding job in 2004 do not face this constraint in 2006 and 13.3 % of workers without a non-physically demanding job in 2004 face physically demanding work conditions in 2006. Regarding the second item (I am under constant time pressure due to a heavy workload), the evolutions between states are even more pronounced (28.9 % and 22.6 % respectively).

Table 5:3 **Descriptive statistics on working conditions**

Transitions between 2004 and 2006	In 2004	In 2006
My job is physically demanding	45.7 %	42.7 %
• 65.9 % of workers declare an identical physical demand in 2004 and 2006 • 22.3 % of workers declaring a physically demanding job in 2004 do not face this constraint in 2006 • 13.3 % of workers declaring a non physically demanding job in 2004 face this constraint in 2006		
I am under constant time pressure due to a heavy workload	55.8 %	49.6 %
• 58.9 % of workers perceive an identical time pressure in 2004 and 2006 • 28.9 % of workers declaring time pressure in 2004 do not face this constraint in 2006 • 22.6 % of workers declaring no time pressure in 2004 face this constraint in 2006		

Source: SHARE 2004 and 2006.

5.3.2. Econometric method

Our econometric method aims at measuring the impact of working conditions on reward at work. The two factors already discussed ('having a physically demanding job' and 'being under a constant pressure due to a heavy workload') are the explanatory variables, while the outcome variable is 'reward at work'. 'Reward at work' is a dichotomous variable and is termed (y). We use two random-effects regression models, M1 and M2, which differ in their hypotheses. Model M1 measures correlations between (y_{it}) and the vector (X_{it}) including a physically demanding job and a constant pressure due to a heavy workload but also other observed socioeconomic variables available in the data set: gender, age, country, education, income for 2003, occupation (coded by international standard classification of occupations ISCO) in 2004 and firm size in 2004. It is important to note

that these socioeconomic variables are time-invariant in our study. Working conditions are the only variables that are time-variable.

The outcome (y_{it}) is associated with a latent continuous variable (y^*_{it}) representing the degree of reward at work perceived by workers.

The first model assumes a linear relationship between (y^*_{it}), (X_{it}) and errors; the latter are composed of individual time-invariant terms (u_i) and individual time-variant terms (v_{it}). We assume that (u_i) are independent and identically distributed and normally distributed; (v_{it}) are also independent and identically distributed but logistically distributed. Finally, the variables in (X) are assumed to be exogenous.

$$(M1)\quad \begin{cases} y^*_{it} = \alpha + X'_{it}\beta + u_i + v_{it} \qquad i = 1..N \qquad t = 1,2 \\ Where: \quad \begin{cases} y_{it} = 1 & if\ y^*_{it} \geq 0 \\ y_{it} = 0 & if\ y^*_{it} < 0 \end{cases} \\ And: \quad E(u_i | X_{it}) = E(u_i) = 0 \quad ; \quad Var(u_i) = \sigma_u^2 \\ And: \quad E(v_{it} | X_{it}) = E(v_{it}) = 0 \quad ; \quad Var(v_{it}) = \sigma_v^2 \\ And: \quad E(u_i, v_{it} | X_{it}) = E(u_i, v_{it}) = 0 \end{cases} \qquad (5:1)$$

The coefficient (ρ) measures the proportion of the total residual variance corresponding to time-invariant errors.

$$\rho = \frac{\sigma_u^2}{\sigma_u^2 + \frac{\pi^2}{3}} \qquad (5:2)$$

This first model does not allow us to control for individual unobserved heterogeneity, such as individual productivity, human capital and risk aversion, which can bias the estimations. Therefore, we estimate a second model M2 in which individual time-invariant unobserved heterogeneity is controlled for. We use a random effects model in which the individual term (u_i) is correlated with regressors (Arellano and Honoré, 2001; Chamberlain, 1984) according to the following relationship:

$$
\begin{aligned}
& u_i = \sum_{t=1}^{2} X_{it}^{'} \lambda_t + w_i \qquad i = 1..N \\
& Where: \quad w_i \approx N(0, \sigma_w) \\
& And: \quad E(w_i | X_{it}) = E(w_i) = 0
\end{aligned}
\tag{5:3}
$$

Using this decomposition, we can summarise model M2 as follows:

$$
M2 \begin{cases}
y_{it}^{*} = \alpha + X_{it}^{'}.\beta + \sum_{t=1}^{2} X_{it}^{'}.\lambda_t + w_i + v_{it} \qquad i = 1...N \qquad t = 1,2 \\
Where: \begin{cases} y_{it} = 1 & if\ y_{it}^{*} \geq 0 \\ y_{it} = 0 & if\ y_{it}^{*} < 0 \end{cases} \\
And: \quad E(w_i | X_{it}) = E(w_i) = 0 \ ; \ Var(w_i) = \sigma_w^2 \\
And: \quad E(v_{it} | X_{it}) = E(v_{it}) = 0 \ ; \ Var(v_{it}) = \dfrac{\pi^2}{3} \\
And: \quad E(w_i . v_{it} | X_{it}) = E(w_i . v_{it}) = 0
\end{cases}
\tag{5:4}
$$

5.4. Research findings

5.4.1. Correlations between reward at work and high-demand environments

When observed variables ([3]) are considered and time-invariant unobserved heterogeneity is not considered (M1), we find significant associations between low reward at work and high-demand working conditions (Table 5:4). The probability of indicating an inadequate reward is significantly linked with time pressure due to heavy workload (OR ([4])=2.05; P value<0.0000) and with physical demand (OR=1.84; P value<0.0000).

([3]) Gender, age, country, education, income in 2004, international standard classification of occupations (ISCO) and firm size.

([4]) The odds ratio corresponds to the ratio of the odds in favour of an event occurring in one group to the odds of it occurring in another group. An odds-ratio above 1 indicates a positive correlation and an odds ratio below 1 corresponds to a negative correlation.

But in model M2 – i.e. when time-invariant unobserved heterogeneity is controlled for – the association between inadequate reward and time pressure due to a heavy workload is less pronounced and non significant (OR=1.30; P value<0.1260) (Table 5:4). This result suggests that older workers receive compensation for dealing with such a constraint. We find different results for the second factor: physically demanding jobs. On the basis of model M2, we find that a low reward remains significantly associated with physical demand at work (OR=1.67; P value<0.0120), although this association moves towards

Table 5:4 **Probability of inadequate reward at work**

	Model M1				Model M2			
	Odds ratio	P value	IC 95%		Odds ratio	P value	IC 95%	
Being under constant time pressure due to heavy workload	2.05	0.0000	1.63	2.57	1.30	0.1260	0.93	1.81
Physically demanding job	1.84	0.0000	1.44	2.35	1.67	0.0120	1.12	2.48
Time pressure in 2004					1.40	0.0530	1.00	1.96
Physically demanding job in 2004					1.03	0.8690	0.70	1.53
Time pressure in 2006					1.63	0.0040	1.17	2.27
Physically demanding job in 2006					1.06	0.7550	0.72	1.57
Men	0.81	0.1120	0.62	1.05	0.80	0.0970	0.61	1.04
50 to 54 (reference: 60 to 70)	1.25	0.3120	0.81	1.94	1.23	0.3540	0.79	1.92
55 to 59	1.17	0.4900	0.75	1.83	1.14	0.5610	0.73	1.80
BE	0.93	0.8120	0.52	1.67	0.99	0.9690	0.55	1.78
DK	0.71	0.3040	0.37	1.36	0.76	0.4110	0.40	1.46
EL	4.40	0.0000	2.47	7.83	4.44	0.0000	2.48	7.95
ES	1.12	0.7670	0.53	2.37	1.20	0.6390	0.56	2.56
FR	4.83	0.0000	2.72	8.59	5.37	0.0000	2.99	9.63
IT	4.65	0.0000	2.40	9.01	4.92	0.0000	2.52	9.60
NL	1.22	0.5270	0.66	2.28	1.40	0.2920	0.75	2.64
AT (reference: DE)	2.87	0.0040	1.39	5.91	2.97	0.0030	1.43	6.16
SE	0.22	0.0010	0.09	0.55	0.24	0.0020	0.10	0.59
CH	1.75	0.0490	1.00	3.04	1.89	0.0260	1.08	3.31
Upper-secondary education (reference: primary and lower secondary)	0.95	0.7720	0.69	1.32	0.97	0.8400	0.70	1.34
Post-secondary education	0.71	0.0650	0.50	1.02	0.72	0.0730	0.50	1.03
Occupation 2 (reference: occupation 1) *	1.70	0.0020	1.22	2.36	1.74	0.0010	1.25	2.43
Occupation 3	1.87	0.0080	1.18	2.96	1.92	0.0070	1.20	3.07
Occupation 4	2.05	0.0020	1.31	3.21	1.34	0.3840	0.69	2.61
Annual income in 2003	0.93	0.0020	0.89	0.97	0.93	0.0020	0.89	0.97
Firm size>=25 (reference: <25 and self-employed)	1.83	0.0000	1.40	2.37	1.78	0.0000	1.37	2.32
Self-employed	0.58	0.0050	0.39	0.85	0.57	0.0050	0.39	0.85
Coefficient (ρ)	0.62	0.0000	0.57	0.67	0.62	0.0000	0.57	0.67

Model M1: random effects LOGIT model; Model M2: random effects LOGIT model where individual errors are correlated with regressors.

* These categories correspond to the international standard classification of occupations (ISCO). See table 5:1 for legend.

Source: SHARE 2004 and 2006.

zero (that is equivalent to an odds-ratio more close to 1). As the model controls for several variables – gender, age, country, education, income, occupation, firm size and unobserved time-invariant variables – we assume that our results are not biased by unobserved factors and that they do identify the correlation between reward and working conditions. Under this assumption, the results, which show lack of reward when working in a physically demanding environment, could be explained by an inadequate recognition of such restrictive working conditions in the firm or a deliberate reduction in rewards for older workers by employers targeted towards stimulating older workers to retire.

5.4.2. Reward at work and high-demand environments for different socioeconomic groups

As the results are overall estimates, they may hide heterogeneous situations. The intensity of the relationship between reward at work and a high-demand environment may depend on contextual and socioeconomic variables.

One reason could be that the notions of 'constant pressure due to a heavy workload' and 'physically demanding jobs' correspond to different realities. For instance, physical difficulties at work do not necessarily mean the same for manual and non-manual workers as the negative consequences of physical demands and the nature of the compensation for physical constraints are likely to be different. Further, physically demanding jobs may be well-recognised for manual workers but not for non-manual workers, or the opposite, which could induce a feeling of reward for having a physically demanding job among manual workers and a feeling of inadequate reward among non-manual workers. However, we cannot examine this issue specifically because our data set does not contain information on manual and non-manual workers. We have some information about factors that are related to being employed in manual versus non-manual jobs, such as educational attainment level, income and gender.

Firms may also be less successful in rewarding wealthier workers than less well-off workers. If we retain the hypothesis suggested in the endogenous risks model presented by Gunderson and Hyatt (2001), the wealthier workers are, the more they need safety at work. In that context, it may be more difficult and costly for firms to satisfy wealthier workers when they work in adverse environments than the poorer ones, which implies that the disutility of risks among wealthier workers is less likely to be adequately compensated.

More generally, the reality behind the notions of reward at work, physical difficulties, constant pressure and heavy workload may differ according to educational attainment level, income, gender and firm size. We, therefore,

examine the assumption that the intensity of the relationship between reward at work and a high-demand environment depends on contextual and socioeconomic variables. To do so, we estimate the two models presented before for each of the following groups: people working in firms with more than 25 employees or more, and workers in firms with fewer than 25 employees; workers having a high (upper and post secondary) versus people with a low educational level (primary and lower secondary); workers whose annual income in 2003 is higher or lower than median of

Table 5:5 **Influence of the socioeconomic group on the correlations between working conditions and reward**

	Model M1				Model M2			
	Odds ratio	P value	IC 95%		Odds ratio	P value	IC 95%	
Firm size>=25 (n=1792)								
Being under constant time pressure due to heavy workload	2.45	0.000	1.76	3.42	1.91	0.007	1.20	3.05
Physically demanding job	1.91	0.000	1.35	2.71	1.31	0.339	0.75	2.29
Firm size<24 (n=1348)								
Being under constant time pressure due to heavy workload	2.07	0.000	1.46	2.94	0.82	0.491	0.47	1.43
Physically demanding job	1.54	0.024	1.06	2.25	1.71	0.118	0.87	3.33
Education: upper and post secondary (n=2844)								
Being under constant time pressure due to heavy workload	2.17	0.000	1.65	2.86	1.87	0.003	1.24	2.81
Physically demanding job	2.08	0.000	1.56	2.76	2.19	0.001	1.35	3.56
Education: primary and lower secondary (n=1210)								
Being under constant time pressure due to heavy workload	1.70	0.013	1.12	2.57	0.61	0.106	0.34	1.11
Physically demanding job	1.26	0.326	0.79	2.02	0.92	0.819	0.44	1.90
Income>=median income (n=2853)								
Being under constant time pressure due to heavy workload	2.15	0.000	1.65	2.79	1.50	0.041	1.02	2.21
Physically demanding job	1.72	0.000	1.30	2.28	1.73	0.023	1.08	2.78
Income<median income (n=1498)								
Being under constant time pressure due to heavy workload	2.20	0.000	1.51	3.22	1.26	0.410	0.73	2.16
Physically demanding job	2.46	0.000	1.62	3.74	1.99	0.040	1.03	3.82
Age: 50 to 54 (n=2081)								
Being under constant time pressure due to heavy workload	1.71	0.000	1.27	2.30	1.10	0.671	0.71	1.69
Physically demanding job	1.87	0.000	1.36	2.58	1.84	0.021	1.09	3.08
Age: 55 to 70 (n=1873)								
Being under constant time pressure due to heavy workload	2.67	0.000	1.87	3.82	1.66	0.058	0.98	2.81
Physically demanding job	1.83	0.002	1.25	2.68	1.44	0.258	0.77	2.69
Men (n=2195)								
Being under constant time pressure due to heavy workload	1.90	0.000	1.38	2.62	1.07	0.788	0.67	1.70
Physically demanding job	1.69	0.004	1.19	2.41	1.48	0.167	0.85	2.58
Women (n=1759)								
Being under constant time pressure due to heavy workload	2.22	0.000	1.61	3.07	1.58	0.059	0.98	2.56
Physically demanding job	1.96	0.000	1.40	2.75	1.90	0.030	1.07	3.39

Source: SHARE 2004 and 2006.

seniors' group income in each country; workers aged 50 to 54 and workers aged 55 to 70; and men and women. First, we examine the relationship between reward and time pressure due to a heavy workload and, second, the relationship between reward and physically demanding working conditions. The results are reported in Table 5:5.

5.4.2.1. *Intensity of the relationship between reward and time pressure*

The results identify groups of people for whom the relationship between a low reward and time pressure due to a heavy workload is positive:

(a) people working in firms with more than 24 employees: in this group, the odds-ratio measuring the relationship between time pressure and a low reward in the model M2 is equal to 1.91 (P value=0.007);
(b) individuals with a high educational level: for this group, the odds-ratio in the model M2 is 1.87 (P value=0.003);
(c) individuals whose income is above median: for this group the odds-ratio in the model M2 is 1.50 (P value=0.041);
(d) individuals over 55: for whom the odds-ratio is 1.66 (P value=0.058);
(e) women: for whom the odds-ratio is 1.58 (P value=0.059).

We also identify groups of people who, in contrast, are adequately compensated when they face time pressure at work (Table 5:5): people working in firms of less than 25 employees (OR=0.82; P value=0.491); individuals with a low educational level (OR=0.61; P value=0.106), people whose income is below median (OR=1.26; P value=0.410); individuals aged 50 to 54 (OR=1.10; P value=0.671); and men (OR=1.07; P value=0.788).

5.4.2.2. *Intensity of the relationship between reward and physical demand*

We have previously established that, for senior workers, low reward is significantly associated with physical demand at work, but a closer look at this correlation within each socioeconomic group reveals more diverse results. We find disparities between workers aged 50 to 54 and those aged 55 and over (Table 5:5): for younger ageing workers, the correlation between a low reward and physical demand is not significant (OR=1.44; P value=0.258) while for older ageing workers, we find a statistically significant relationship (OR=1.84; P value=0.021). We also uncover disparities according to educational attainment level: for the lowest level of educational attainment, the correlation between reward and physical demand is not significant (OR=0.92; P value=0.819); for the highest educational attainment level, the correlation is significant (OR=2.19; P value=0.001). Finally, we find disparities between men and women: for men, the correlation between low

reward and physical demand is insignificant (OR=1.48; P value=0.167); for women, it is significant (OR=1.90; P value=0.030).

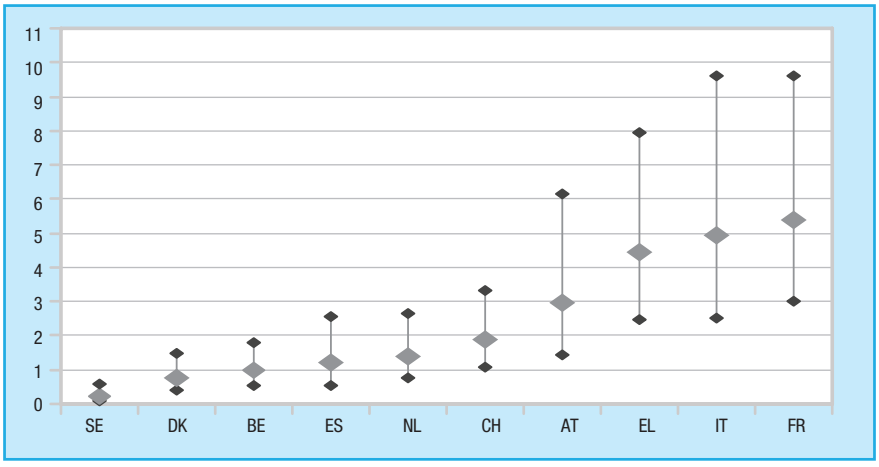
5.4.2.3. *A higher probability of declaring a low reward among low income workers and workers in firms with 25 employees or more*

The analysis also indicates what relationships exist between the probability of declaring a low reward at work and several socioeconomic variables. As expected, we find a positive correlation between reward at work and individual income. Reward at work also depends on firm size, but this relationship does not seem to be in line with the known association between wages and firm size (Oi and Idson, 1999). Seniors working in firms with 25 employees or more declare a lower reward than those working in firms with less than 25 employees. Finally, regressions also indicate that self-employed seniors declare a higher reward than individuals working in firms with less than 25 employees.

5.4.2.4. *Reward disparities between countries*

The probability of declaring a low reward also strongly depends on the country-specific context, as shown in Figure 5:1. The figure details the

Figure 5:1 **Declaring an inadequate reward according to the country, *ceteris paribus*. Reference: Germany – Results from model M2**



Reading guide: the probability of declaring a low reward at work is approximately 5.4 higher for workers in France than in Germany (reference category).

Source: SHARE 2004 and 2006.

level of perceived reward in the surveyed countries by summarising the information from model M2 in Table 5:4.

In Sweden, senior workers have a lower probability of declaring an inadequate reward at work than in Germany, *ceteris paribus* (i.e. by controlling for income, occupational sectors, firm size, education, gender, age, working conditions). In Austria, France, Greece, Italy and Switzerland, the probability of declaring a low reward is significantly higher than in Germany. The other countries – Belgium, Denmark, Spain and the Netherlands – do not differ significantly from Germany in term of perceived reward at work. All these residual differences may be caused by cultural factors, differences in organisations, the management of firms and collective action at firm level or nationally.

5.5. Conclusion

Using European panel data from the survey on health, ageing and retirement carried out in 2004 and 2006, we have explored to what extent the level of perceived reward at work is related to two factors: time pressure due to a heavy workload and physically demanding jobs. The results provide new information about determinants of seniors' reward at work and are important in understanding retirement decisions.

We find that perceived reward at work is not significantly related to time pressure due to a heavy workload, *ceteris paribus*. There are no reward differences between seniors working under time pressure and those who are not concerned by this constraint; this result suggests that senior workers receive compensation for dealing with such a constraint. It would imply that a constant pressure due to a heavy workload that is identified by workers is internalised by firms which effectively reward workers exposed to these constraints.

But this measure is an overall estimate that hides differences between socioeconomic groups. A more detailed analysis within socioeconomic groups makes it possible to isolate groups of seniors who feel they receive a significantly low reward when they face time pressure at work. These groups are: individuals working in firms with 25 employees or more, individuals having a high educational level, individuals whose income is above the median, individuals aged 55 or over and women. As we control, in each group, for individual disparities, we conclude that these different groups are not adequately rewarded for working under constraining time

restrictions. This situation could be explained by a lack of recognition of this issue in firms. Another possible explanation is that the groups are affected by low reward for high time pressure from employers encouraging seniors to retire.

In addition, we have evidence that low reward at work is significantly associated with physically demanding working conditions: people perceive significantly lower rewards when they face this kind of constraint. Here again, we can evoke the possible lack of recognition of the actual severity of such a constraint or even a low perceived reward that would be a consequence of employer decisions.

The strength of the correlation between rewards and physical demand varies according to socioeconomic characteristics. This relationship is particularly strong among those having a high educational level and those aged 50 to 54 and women. Conversely, for people having a low educational level, workers aged 55 or up and men, reward and physical demand at work are not significantly related.

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6. Matching individual and organisation needs to enable longer working lives

René Schalk

ABSTRACT

Ageing has positive as well as negative implications. On the positive side old age is associated with growing experience and skills; on the negative side it is associated with a higher risk of health problems. Related to these processes, the match between individual and organisation needs implied in the employment relationship is expected to change with age because individuals attach different values to what employers offer them in different phases of the life course. Matching individual and organisation needs is an important prerequisite for maintaining a balanced relationship at work during the entire life span. This is a supportive factor that enables people to work longer.

Data from a survey of six European countries and Israel encompassing more than 3 500 employees of different ages are used in this chapter. The data were analysed with the aim of examining age-related differences in the psychological contract: the perception of the mutual obligations between employee and employer.

The results of the analysis of age-related differences show that (controlled for country, sector, gender, and having a supervisory position) older employees are more positive about their own contribution and delivery of the deal. Further, there are striking differences in age patterns between countries. For example, while older employees in Spain, the Netherlands and the UK feel that their employers have more obligations towards them than younger employees, the opposite is the case in Belgium, Germany, Israel and Sweden.

The findings show that it is important to differentiate between countries and to consider the work context. In addition, the results indicate that matching individual and organisation needs is beneficial in the long term. This underlines the importance of maintaining a good match between individual and organisation need during the entire life course.

6.1. Introduction

Many European countries are facing unprecedented demographic change. In the European Union (EU), the number of young adults (25-39 years old) started to decrease from 2005 onwards and this trend is expected to accelerate significantly after 2010 (European Commission, 2005). In contrast, the number of people aged 55 and over is expected to grow by almost 10 % between 2005 and 2010, and by more than 15 % between 2010 and 2030 in the EU as a whole. At the same time, future projections show that in the EU, the total working population (15-64 years) is expected to decrease by 20.8 million between 2005 and 2030 (European Commission, 2005). Therefore, companies will have to rely increasingly on the knowledge, skills, and experience of older workers while overall the available workforce is shrinking considerably.

Since the context of work is changing, as is the age composition of the workforce, this raises several issues in matching individual and organisation needs in the employment relationship. When employees have to stay at work longer, anticipating on changes that occur with age might help us to manage the working life cycle better.

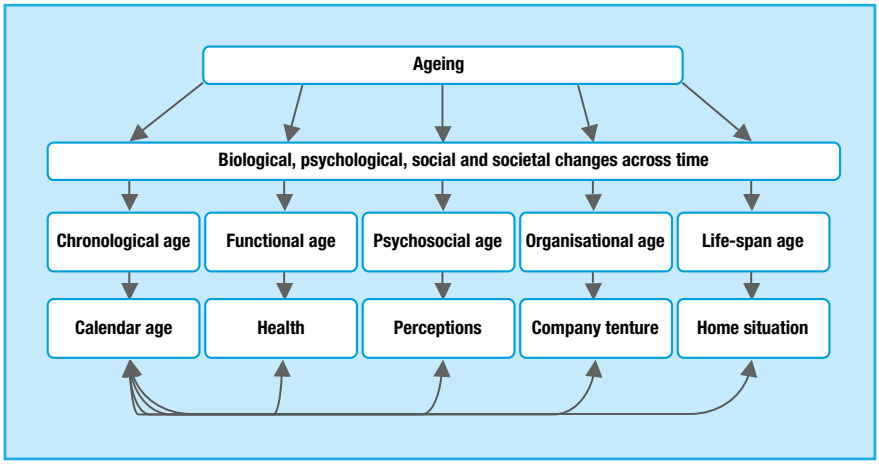
This chapter deals with four issues. First, the definition and the meaning of 'age' is discussed. Next, the dynamics of matching individual and organisation needs over time is described. After that, the status quo in terms of research-based knowledge on current human resources policies is examined. Next, differences between European countries are analysed using empirical data. The conclusions address central questions of how to consider the specific needs of each age group in organisations, and how to enable older people to stay employed.

6.2. Different conceptualisations of age

Age can be conceptualised in many different ways. Ageing refers to a multi-dimensional process that encompasses changes in functioning over time (Birren and Birren, 1990; Kanfer and Ackerman, 2004; Sterns and Miklos, 1995). These changes include biological, psychological, and social processes. Therefore, there are different approaches to conceptualising and working with age (De Lange et al., 2006). Figure 6:1 depicts these different conceptualisations of work-related ageing.

Conceptualisations of age range from age as an individual characteristic on the one hand to age as a characteristic of the environment on the other. Other positions on the continuum conceptualise age as a characteristic of

Figure 6:1 **Representation of possible definitions of the concept 'ageing' and indicators**



Source: adapted from De Lange et al., 2006.

the person-environment interaction. Chronological age is a clear example of an individual characteristic. Age conceptualised as years in a certain organisation, or years in a certain job, is related to the person-environment interaction. Social age, based on stereotypes and ageism are primarily determined by context characteristics.

The first and primary conception of age is chronological age, which refers to the number of lived years: age as 'the number of years someone has lived or something has existed' (Longman, 2003, p. 8). Chronological age has implications because it delimits the identification of age groups. Statutory regulations, for example, create age barriers and identify who has become an older employee. The older employee may be entitled to receive additional holidays, special provisions could be made available to specific age groups, and the retirement age can be regulated.

Physiological age, performance age, or functional age, is a medical construct. It is based on the variation in health and physical decline. Rather than the actual number of lived years, people's state of health/performance capacity is considered to be the most important determinant for being considered old. Organisational or job age refers to confounding age and company or job tenure. Life-span age emphasises the influence of family life and economic constraints on behavioural changes in the life cycle (Sterns and Doverspike, 1989; Sterns and Miklos, 1995). Social age refers to the

attitudes, expectations and norms about appropriate behaviour, lifestyles and characteristics for people at different ages. Psychosocial age includes the social and self-perceptions of older workers (Sterns and Doverspike, 1989).

It has been argued that the socially and economically constructed aspects of ageing are far more influential on older people's lives than chronological or physiological age (Pain, 2001). Age is socially constituted (Bytheway, 1995), a social marker. There are culturally prescribed norms concerning appropriate behaviour at certain stages in the life course (Pain et al., 2001).

This is also the case in organisations. According to Lawrence (1984), age distribution within an organisation forms an implicit career timetable. People use their perceptions of this timetable to determine whether their careers are on or off schedule. In addition, Lawrence (1988) showed that socially-generated age effects resulted from age norms that evolved, in part, from the actual age distribution within an organisation. Age distributions appear distinct from, but related to, age norms. Deviation from age norms is associated with performance ratings, which shows that managers respond to shared beliefs about age rather than to actual ages. Age norms produce age effects, known already for more than 60 years (e.g. Linton, 1942; Parsons, 1942).

There is also often a difference between the objective assessment of age and the subjective experience. Among people in the same chronological age cohort, there is great variety in the age category in which they place themselves. At age 55, for example, some consider themselves young, some middle-aged, while others see themselves as old (Logan et al., 1992). This also occurs in the workplace. Workers generally report that they feel, look, act, and prefer to be younger than their chronological age. Those employees feeling old relative to their chronological age typically experience more job-related strain (Barnes-Farrell et al., 2002).

The conceptual definition of age is the basis for the study of ageing and work and the person/environment interaction plays a prominent role in determining what or who is old. Therefore, establishing a match between person and environment is of the utmost importance.

6.3. Matching individual and organisation needs

6.3.1. **The individual perspective: changes in the life course**

Employee needs and their ideas about important employer obligations (and themselves) change over time. At different ages, employees have different

priorities. The content of these priorities, and the changes over time, are related to career stages and events in private life. The seasons of a man's life (Levinson et al., 1978), as well as of course those of a woman's life (Gallos, 1989) bring forward different ideas about what is important in the employment relationship. The stages in male adult development proposed by Levinson et al. (1978) and Levinson (1986) are used here as a starting point. Although, in our opinion, few individuals have a life course that strictly matches Levinson's scheme, it is a useful starting point to illustrate typical changes that might occur in the course of life. Levinson conceives of the adult life course as a sequence of structure-building periods and structure-changing periods (or transitions). In the structure-building periods the central task for a person is to create a (renewed) life structure, that is, an underlying pattern or design in one's life based on primary relationships. According to Levinson, such a period usually lasts six or seven years, up to 10 years maximum. After each structure-building period, there is a period of transition to a next structure-building period. Much of the structure of the previous phase is then abolished. The person's views of self and the world are reexamined, and choices are made, creating a new life structure. These transition phases usually last about five years. Each transition ends the previous phase and begins the next.

Table 6:1 **The phases discerned by Levinson**

	Age
Pre-adulthood	8-17
Early adult transition	17-22
Entry life structure for early adulthood	22-28
Age 30 transition	28-33
Culminating life structure for early adulthood	33-40
Mid-life transition	40-45
Entry structure for middle adulthood	45-50
Age 50 transition	50-55
Culminating life structure for middle adulthood	55-60
Late adult transition	60-65

Source: Levinson, 1978.

A person is constantly giving up elements of the earlier age period and acquiring new elements for the next one. In the beginning of the career in early adulthood, the needs and expectations (the basis for the exchange of obligations between employer and employee) are related to the central theme of 'testing your own capabilities'. Employees have to

learn by experience if they can and want to be part of the organisation, and if they have the capabilities required for fulfilling the work obligations (Schein, 1988). In later stages of the career, these needs and expectations shift to discovering the work area in which they want to build a career (specialisation) and acquire a professional identity. In addition, they expect that the organisation will recognise the contribution.

The major issue for men in early adulthood, according to Levinson et al. (1978), is building a career and a family, with the career often taking precedence. The age-30 transition is often directed at improving one's lot in the career realm. For men, it is often not until the mid-life transition that they begin to deal in a deep way with family issues and with the conflicts between career and family. In a later stage of the career, in which the employee is most productive, he expects to get recognition and rewards from the organisation. In the last phase of the career, when the position and contribution to organisational activities of an employee are less prominent, the need for security is high, and the expectations centre on the theme of not being made redundant.

A successful career implies being able to be creative, take on a broad array of tasks and acquire all-round knowledge. In the second half of the career, employees attach a different value to having a career and to the sacrifices they have to make to reach their goals in their social lives. Work pleasure, self-actualisation, social recognition, and being able to use creative sources seem to be more important for employees in later career stages (Freese and Schalk, 1995). In short, the meaning attached to work changes.

Women appear to have a different cycle of and different correlates of development (Gallos, 1989). The central issue for women is that growth and career are based on interdependence and relationships. Bardwick (1980) refers to the male sense of self as egocentric and the female sense as interdependent. By egocentric she means an orientation of autonomy and concern for task achievement, and internal focus on one's work. By interdependent she means being oriented toward relationships, working with and helping others, and defining oneself in terms of the other people in one's life.

According to Bardwick (1980), the most important differences in male and female career development stages occur in the 30s and 40s. These two decades reflect the following concerns for women. Women from the age 28 to 39 experience the age-30 transition and the settling-down period of the second adult-life structure. Women probably experience a more profound and prolonged transition than men at the same age for the effects

of factors such as the 'biological time clock' and the effects of growing families (children). Women at this age experience strong career changes, whether they have just established a career or are in mid-career, as well as strong life and family changes.

According to Bardwick (1980) at age 40-50, the mid-life transition and middle adulthood, women feel more secure and settled in their relationship and are moving toward more autonomy. Men are moving in the opposite direction; as career and task demands diminish, they are able to become more sensitive to interpersonal relationships and to their internal psychological needs. Each gender is moving toward greater balance of autonomy and interdependence, but from different directions (Sekaran and Hall, 1989).

Male and female careers and family issues should be conceived of as an integrated whole. An individual career should always be considered in the context of other life roles. Each person is part of a social environment and has a life outside work; on career issues, the circumstances of private life should be considered. Family developmental needs may produce career dynamics as work and family links are often so strong and pervasive that they simply cannot be ignored.

This is not only the case for men, but also for women. Women are increasingly entering the labour force with the intention of staying there. The number of dual-career families is increasing and such families have to deal with the adjustment of two careers. It is clear that couples' careers might be asynchronous at various stages of life: they do not have to start at the same point and, when they do, they might progress at different rates (Sekaran and Hall, 1989). Organisational policies might make it difficult for couples to reconcile their family and work interests and goals in a smooth way.

In general, older employees indicate higher levels of obligations, especially with respect to their own obligations (Huiskamp and Schalk, 2002). It seems that older employees have a better psychological contract than younger employees (Freese and Schalk, 1995). Older employees feel especially obligated to work extra hours if that is what is needed to get the job done, work well with others, provide a good service, and deliver good work in terms of quality and quantity. However, they feel that their employer has stronger obligations (compared to younger employees) to provide them with a good work climate, bonuses based on performance, and open and direct communication. Older employees feel that the organisation fulfils its obligations less well than younger employees when it comes to opportunities for promotion, good work climate, and respect (Huiskamp and Schalk, 2002).

From the employee perspective, ideas about the employment relationship change over time. This is caused by changes related to ageing and progression through the life course, developments shaping private life (the career pattern of the partner) and shaping the employment relationship itself (socialisation, renegotiation, changing jobs, or leaving for another organisation).

6.3.2. The organisational perspective: human-resources policies and age

Age policy in general has an influence on the way people of different ages behave in organisations. In particular, human resources policies and practices have an influence on the way employees operate in organisations. Therefore, how older employees are considered in society in general and by managers and human resources departments in particular will have an important impact on how this category of workers is treated in an organisation. Moreover, whether or not human resources is 'age appropriate' might affect employee wellbeing, performance, and health. Not much is known, however, on the question whether and how HR policies and practices influence attitudes and behaviour of older employees. In addition, organisations are often not aware of demographic change as a challenge for their further development.

Direct effects of HR can be assessed by evaluating the effects of specific HR practices on certain age groups. For example, do additional holidays for older employees, or opportunities to work shorter hours, or to work flexible hours, have a positive influence on older employees? Is demotion effective in successfully reintegrating employees at work after experiencing a burnout? Empirical evaluation of these measures, which would create evidence based HR practices, is more the exception than the norm.

Although a strong evidence base is lacking, the status quo of research in this area can be summarised by discussing several avenues researchers have taken to start building evidence. A first approach takes as a starting point that the way employees are treated in organisations in relation to their age is likely to be determined by underlying general conceptualisations of ageing. For example, it will make a difference whether a conservation model (employees are long-lasting organisational assets worthy of investment) is employed versus a depreciation model (workers' value to the organisation declines with age) (Greller and Stroh, 2004; Peterson and Spiker, 2005; Yeats et al., 2000). The basic management strategy on how to use human resources and human capital will influence the position and the prospects of older employees.

Underlying the general conceptualisations are age stereotypes, which are the most important source of counteractive human resources policies and managerial decisions on older employees (Boerlijst, 1994). Age stereotypes are a general phenomenon. Hassell and Perrewe's study (1995) showed that although older workers hold more positive beliefs about older workers than younger workers do, even younger workers tended to have generally positive beliefs. In addition, they found that older supervisors hold more negative beliefs about older workers than younger supervisors. Identity theory and relative deprivation have been related to age stereotypes to understand better the mechanisms behind age stereotypes (Desmette and Gaillard, 2008). The more individuals categorise their own identity as that of an older worker, the more they experience personal deprivation as compared to younger employees.

There is substantial evidence that age stereotypes are often not justified. De Lange et al. (2005) showed that older employees are no less motivated than their younger colleagues to acquire new skills. Challenging work environments are considered equally important by employees from all age categories. Older employees' needs from human resources practices are as high as those of younger employees. As McCracken and Winterton (2006) note, the development of employees, such as management development and learning-on-the-job, remains a priority, regardless of age. Personnel policies should be aligned to differentiated age-related needs. Respect, dignity, and recognition should be maintained when employees receive lower wages because of demotion. More flexibility is needed from employers, for example by aiding opportunities for age-related part-time work (bridge employment).

6.4. How do employees experience the match in Europe?

Employee needs and ideas about important employer obligations (and their own) change over time. It is, therefore, important to study the development of mutual obligations of employer and employee with age. The mutual obligations are part of employee psychological contracts (Schalk and Rousseau, 2001). Data on psychological contracts used here were gathered in the Psycones ([1]) project which surveyed retail, manufacturing,

([1]) Psychological contracting across employment situations; EU-funded research in which the author of this chapter was one of the participants. Available from Internet: http://www.uv.es/~psycon/ [cited 24.8.2009].

and education sectors in seven countries (Belgium, Germany, Spain, Israel, the Netherlands, Sweden, and the UK).

In total, 207 organisations participated: 64 retail organisations, 61 manufacturing organisations, and 82 education organisations. The human resources managers or general managers of the organisations selected a random sample of both permanent and temporary workers. The employees were given a questionnaire to fill out at home, and were asked to return the questionnaire directly to the researchers by mail.

6.4.1. **Sample**

The total sample consisted of 3 351 employees with permanent contracts. We included only employees with permanent contracts because having a temporary contract is more common in younger ages. Moreover, temporary contracts are associated with different patterns of obligations. 54 % were female and 31.3 % had a supervisory position. The average age of the sample was 40 years (standard deviation [SD] 11.2). The average organisational tenure was 11.2 years (SD 9.4). The distribution over countries was: Belgium 10.3 %, Germany 10.2 %, Spain 16.9 %, Israel 17.5 %, the Netherlands 14.7 %, Sweden 5.8 %, and the UK 14.4 %. Of the employees surveyed, 41.4 % were in manufacturing, 27.7 % in retail, and 30.9 % in education.

6.4.2. **Measures**

Number of employer obligations

Respondents had to rate whether (yes=1) or not (no=0) the organisation committed itself to each of 15 promises. These promises included aspects such as job content (provide you with interesting work), economic incentives (provide you with good pay for the work you do), and the physical (provide you with a safe working environment) and social (provide you with a good work atmosphere). All yes-responses were counted to form a scale that ranged from 0 to 15.

Fulfilment of employer obligations

When answering ‘yes’ to a specific item, a question concerning fulfilment followed. In particular, the respondents had to rate the extent to which the organisation fulfilled its obligations (1=promises not kept at all; 5=promise fully kept). The average fulfilment was calculated.

Number of employee obligations
Respondents had to rate for each of 17 possible items whether (yes=1) or not (no=0) they themselves had made this specific promise. These promises concerned loyalty on the part of the employee (protect your company's image), respect for the company's rules, regulations and policies (turn up for work on time) and organisational citizenship behaviour (volunteer to do tasks outside your job description).

Fulfilment of employee obligations
When answering 'yes' to a specific content item, respondents had to rate the extent to which they had actually fulfilled this promise (1=promise not kept at all; 5=promise fully kept), and average fulfilment was calculated.

Violation of the psychological contract.
Violation of the psychological contract involves the emotional reaction to the cognitive awareness of an unfulfilled deal (Morrison and Robinson, 1997).

The emotions concerning the perception of violation of the psychological contract were assessed with six feelings concerning the perception of unfulfilled promises by the organisation (happy, angry, pleased, violated, disappointed, grateful) that had to be rated on a five point scale ranging from 'strongly disagree' to 'strongly agree'.

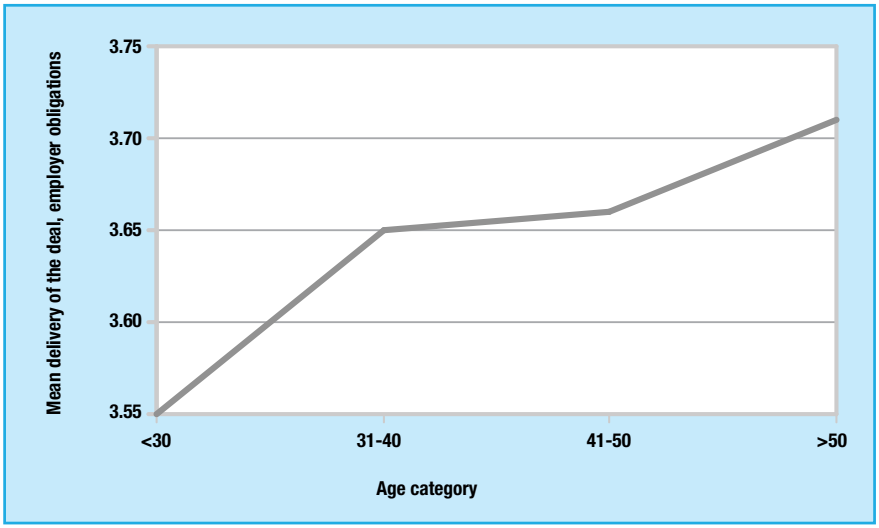
6.5. Results

The development of the psychological contract with age was examined. Four age categories were used: <30 years, 31-40 years, 41-50 year and >50 years, and differences were examined. Table 6:2 shows that, with respect to fulfilment of both employer and employee obligations, at younger ages the scores are lower than for older employees. There are no age-related differences in the

Table 6:2 **Development of the psychological contract with age**

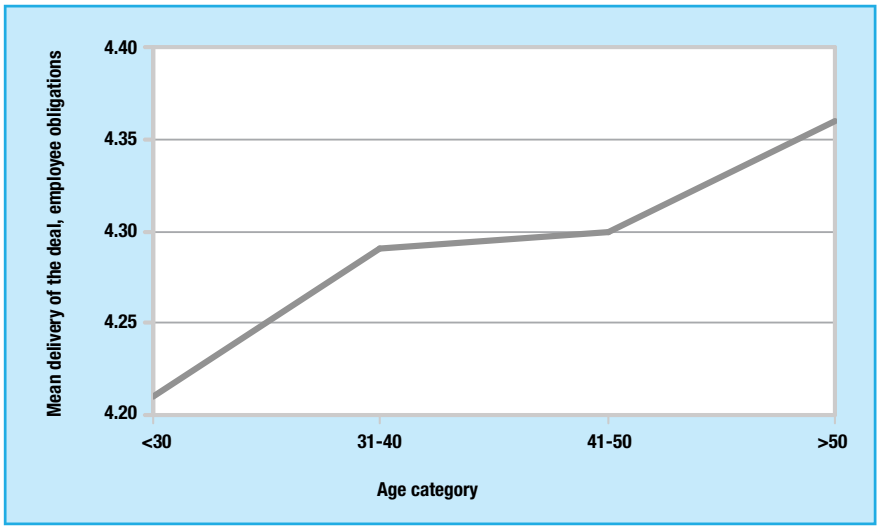
	< 30	31-40	41-50	>50	F	Significance
Number of employer obligations	9.49	9.25	9.15	8.91	2.06	0.10
Number of employee obligations	13.80	13.70	13.90	13.70	0.29	0.83
Fulfilment of employer obligations	3.55	3.65	3.66	3.71	4.59	0.00
Fulfilment of employee obligations	4.21	4.29	4.30	4.36	11.50	0.00
Violation of the psychological contract	2.36	2.37	2.38	2.39	0.14	0.93

Figure 6:2 **Fulfilment of employer obligations with age**



NB: The figure measures the mean delivery of the deal on a 5 points scale, with 1 referring to 'promise not kept at all' and 5 referring to 'promise fully kept'.

Figure 6:3 **Fulfilment of employee obligations with age**



NB: The figure measures the mean delivery of the deal on a 5 points scale, with 1 referring to 'promise not kept at all' and 5 referring to 'promise fully kept'.

violation of the psychological contract and the number of employee obligations. The number of employer obligations tends to decrease with age.

Figures 6:2 and 6:3 show that there is a more or less similar linear trend in the development of fulfilment of obligations with age.

For the number of employer obligations, and fulfilment of both employer and employee obligations, it was further examined whether there were differences between countries. For the purpose of an unbiased comparison between countries, differences in sector, gender, supervisory position, and age categories were controlled for. Significant differences between countries were found: Figure 6:4 highlights two important issues. First, there are differences in the average number of perceived employer obligations between countries. While employees in Spain, the Netherlands and the UK, consider their employers to have many obligations, employees in Belgium, Germany, Israel and Sweden see fewer. Further, there are different trends in the relationships with age. In Israel, Spain and the UK, older employees perceive the employer to have fewer obligations. In contrast, in the Netherlands and Sweden, older employees perceive more employer obligations.

With respect to the fulfilment of employer obligations, the average trend of increasing fulfilment with age is especially found in Germany, Sweden and the UK.

Figure 6:4 **Country differences in number of employer obligations with age**

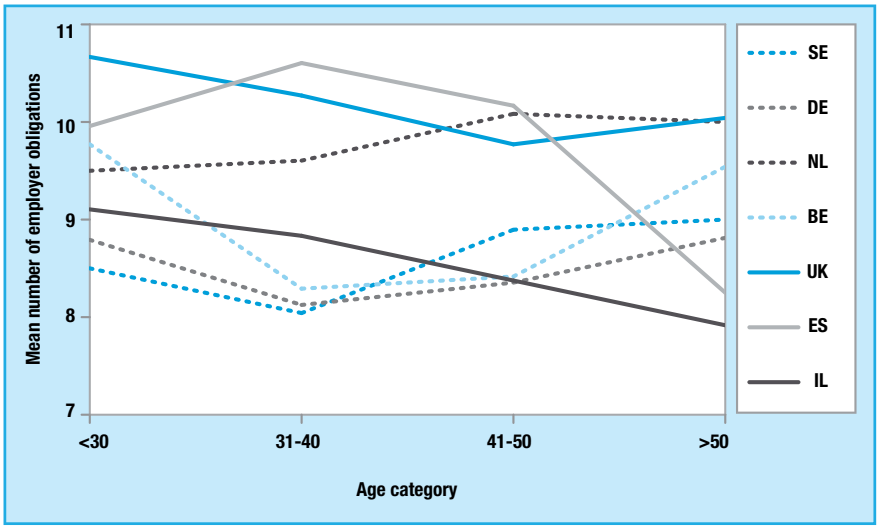
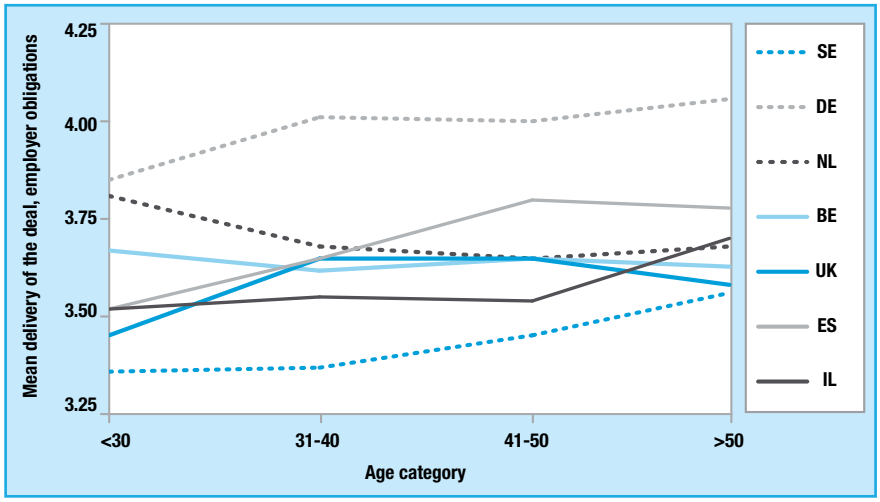
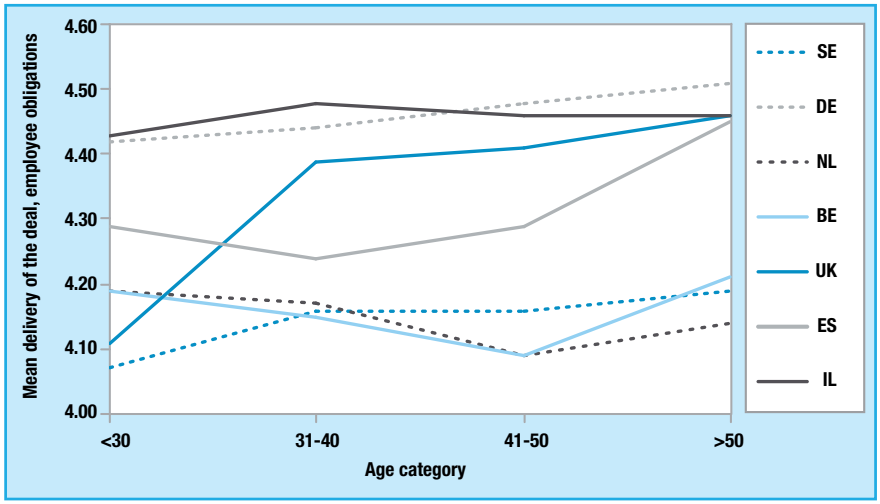


Figure 6:5 **Country differences in fulfilment of employer obligations with age**



For employee obligations, the general increasing trend is found in most countries. In Belgium and the Netherlands, however, employees in the category 41-50 perceive their own obligations as relatively low.

Figure 6:6 **Country differences in fulfilment of employee obligations with age**



6.6. Conclusions

The results of the empirical analysis and the issues discussed in the introduction lead to the following conclusions:

(a) the psychological contract involves partly different experiences for different age categories. The number of employer obligations tends to decrease over time. There are no age-related differences in the number of employee obligations and the experience of violations. The level of fulfilment of employer and employee obligations is higher among older employees;

(b) the context (country) influences the relationship between the level of fulfilment and age. In some countries fulfilment increases with age, in others it decreases;

(c) a life-span approach is needed (Van der Heijden et al., 2008). Most of the time (as in this study), persons are considered 'out of context' and 'at one specific point in time'. A life-span approach acknowledges that people have past experiences that they carry with them, and expectations about the future that have an influence on their behaviour and attitudes. Moreover, the context of family life, social network, and institutional organisation frames their opinions, attitudes, and behaviour. Considering this improves our understanding of behaviour at work and a firm basis for a dynamic match between person and organisation over time can be established;

(d) it is important to see ageing as a multidimensional development that has positive (higher levels of fulfilment of the psychological contract) as well as negative implications. It is important to consider how motives, personal preferences, attitudes and wisdom change and further develop over time, and how these changes impact on work in a way that compensates for potential reduction in performance capacity and employability;

(e) the influence of the country context should be acknowledged. Studying the influence of cross-cultural and economic factors on the effectiveness of coping with ageing can provide insight into the interaction between ageing and country-specific circumstances. Studies that examine cross-national differences are much needed;

(f) human resources instruments need to be designed and put in place taking the life-span perspective of employees as a starting point. It will be hard to solve the 'older worker' issue if the necessary elements for intervention are not already present. The human life span introduces an important element of diversity to the ageing issue, but additionally

so do individual workers' life and career choices: these are also widely divergent. The individual diversity in the group of older employees should be accepted and acknowledged in trying to find ways to keep older workers employed and engaged in their work.

Matching individual and organisation needs is beneficial for employees as well as organisations. For long-term effects, it is important to consider the entire life course.

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7. Flexibility and security for older workers: HRM-arrangements in four European countries

Frank Tros

ABSTRACT

National policies in Belgium, Denmark, Germany and the Netherlands show policy shifts towards active ageing and to improving flexibility and security in the labour market. The main question relates to practice and introduction of these macro policies at workplace level. This chapter presents the findings of a survey in workplaces in four countries in four sectors of industry (n=3 085). A flexicurity approach for senior workers is most visible in the Dutch and Danish workplaces because of a broader range of facilities such as phased retirement, flexible working hours, education and training, and internal and external job-job transitions. A flexicurity approach is used far less in Belgian and German workplaces. The cross-national differences are visible in all four sectors. Examining usage rates, the survey shows different strategies addressing the issue of older workers. The Belgians aim for flexibility in working hours. The Dutch are still focused on a 'relief' strategy (adapting workload, tasks and working hours), while the Danish favour an employability policy. German workplaces show passivity in all items. Further, the investigations reveal cross-sectoral differences. Cross-national differences in motivating those behind flexible arrangements for senior workers at the workplace can play a role in explaining the observed variance.

7.1. Introduction

This chapter presents comparative workplace level data on senior policies in Belgium, Denmark, Germany and the Netherlands ([1]). Against the background of the European debate on promoting longer working careers,

([1]) These four countries have been selected because of the methodological idea of 'most-similar system' design (Przeworski and Teune, 1970). The argument here is that policy-makers can better learn from good practices in countries which have institutions that are not so much different from their own institutions.

the main goal of this survey is to investigate to what extent companies have used flexible measures that can improve the job and employment security for senior employees.

Important questions in this chapter are:

(a) are there significant cross-national variances in the volume and the characteristics of arrangements for employees aged 50+ in the companies?
(b) do we see a different human resources management (HRM) approach in terms of flexicurity and do we observe cross-national variances in the different forms of flexibility and different kinds of security for the senior workers at workplace level?
(c) to what extent do the older workers use the facilities at the workplace?
(d) are there cross-sectoral variations in the provision and use of flexicurity-arrangements? How are these related to the cross-national variances?
(e) can the variations in HRM-practices be explained by differences in the national policy environments?

This chapter concludes that Dutch and Danish companies have used more and broader HRM-policies that provide flexibility for the company and at the same time job/work security for older workers. This may explain the higher and faster increasing employment rates among the 50+ workers in these countries. This chapter identifies a narrower approach and lower levels of use of 'flexicurity'-arrangements in Belgium. In Germany, however, the gap between the national policy intentions to prolong working careers and the passive practices of companies, is clearly the most noticeable. As well as these cross-national differences we see, especially in the Dutch case, rather large cross-sectoral variations in the intensity and characteristics of flexicurity facilities.

In Section 7.2 the concept of flexicurity is discussed in the context of the active ageing debate. Section 7.3 describes the institutional contexts and the national policies for older workers in the four Member States. The findings of the survey are presented in the two following sections. First, the availability of flexicurity arrangements in the companies and the distribution of the facilities among different countries and sectors of industry are analysed in Section 7.4. Then Section 7.5 analyses the degree to which these arrangements are used among older workers in the countries. The conclusions are discussed in Section 7.6.

7.2. Flexicurity and older workers

Flexicurity can be defined as 'a policy strategy that attempts, synchronically and deliberately, to improve the flexibility of labour markets, work organisation and labour relations, and to improve security – employment security and social security – notably for the weaker groups in and outside the labour market' (Wilthagen and Tros, 2004; Wilthagen and Rogowski, 2002). Others define flexicurity less as a deliberate strategy, but more as a certain state of affairs in the labour market, such as Danish academics when they refer to the Danish 'golden triangle of flexicurity' (Madsen 2004; Bredgaard et al., 2005). The fundamental idea of the flexicurity concept is that flexibility and security are not contradictory, but mutually supportive and complementary. The main hypothesis is that labour-market flexibility cannot live without certain levels of security for the workers. And security can not be produced without flexibility in the workplace or in the labour market. Further, the flexicurity concept stresses the importance of new forms of security in labour markets; not only job and income security, but increasingly employment security and combination security. These are forms of security that can be better combined with productive transitions in the labour market from job to job and from unemployment to work. The 'new' psychological contract that seems to emerge in western societies between employer and employee (Marsden, 2004) is less focused on long-term (or even life-time) commitment from the worker to the specific company, but more on the provision of continuing employability in the labour market.

In contrast to the traditional capital-labour nexus, the new flexibility-security nexus suggests that flexibility is not the monopoly of employers, while security is not the monopoly of employees. Employers might be realising that they have an interest in stable employment relations and in retaining employees who are loyal, well-qualified and productive (Auer, 2006). For their part, employees might realise that – to be able to adjust their work life to more individual preferences – they too have an interest in more flexible ways of organising work and employment relations, for example to balance work and family life (Wilthagen and Tros, 2004). However, we should not be blind to the possible ideological (mis)use of the concept of flexicurity, which only goes to sell the message of further flexibilisation and deregulation of labour markets in the interest of certain socioeconomic groups. That is exactly why we need empirical research on the flexibility-security nexus.

Older workers might be a test case for these assumptions. Flexicurity can promote a shift towards more activating policies for older workers. In striving for longer working careers, more flexibility is needed in the recruitment, employability, and retirement patterns of senior employees. At the same time, there is a strong demand for security among older workers; not only for job and income security, but also for employment security to remain active in the labour market and combination security to reach a good work-life balance. However, the simultaneous demand for flexibility and security for senior workers is a challenge because of organisational changes in work organisations, the relatively low levels of education and training investments in senior employees, and their difficulties in finding new jobs. Empirical research has documented that human resources managers, executives and colleagues regard older employees as less adaptable to new technologies (Warr and Pennington, 1993; Remery et al., 2003). One of the main barriers to employability is the concentration of experiences during the working career in a small working field (Thijssen and Van der Velde, 2003). Qualitative research in Dutch workplaces shows little attention from managers for the development of their older subordinates and narrow and specialised developments of older workers (Leisink et al., 2004). Dutch employers give priority to other staffing instruments than prolonging working careers in times of scarcity in the labour market (Van Dalen et al., 2007). An interesting question is whether the current prejudices and passive approach to older workers are only the result of the massive practice of early retirement of the (recent) past?

Table 7:1 gives a brief overview of the changing problem definition with older workers in Europe. It contains a 'question mark' because the discussions continue and traditional policies have not been dropped.

Table 7:1 **A changing policy agenda on older workers?**

	Traditional problem definition	**New problem definition?**
Governments	Early retirement as a (fair) generational distribution of work and a way to reduce labour supply and youth unemployment	Early retirement leading to insufficient labour supply. Therefore, a need to increase the effective retirement age and employment rates of older workers
Trade unions	Early retirement as a (well-deserved) right and social obligation	Still sceptical towards reforms of early retirement schemes
Employers	Older workers as unproductive, inflexible and expensive labour. Early retirement as instrument for workforce redundancies.	Increasingly realising the positive potential of older workers in terms of loyalty, experience, collective memory, etc., and creating policies to recruit and retain older workers
Older workers	Work as disutility. Early retirement culture.	Work as utility. Preference for gradual and flexible retirement

Source: Author.

Public debate in Europe implies a fundamental shift in policy on older workers. New policies have to be more flexible, more preventive and more activating. However, we will not argue that the 'old' policies on older workers were not flexible or not giving security. Arrangements for early retirement exit served in many respects as actual flexicurity devices by creating external-numerical flexibility for the enterprises in redundancy periods and by providing income security for older workers who lost their jobs, despite the fact that it was not intended as such (Maltby et al., 2004). But demographic changes and increasing diversity in the labour market mean that this flexicurity is no longer preferable, or has, at least, to be supplemented by more activating combinations of flexibility and security. New policies are needed to compensate workers for the loss of income security (because of less generous early retirement arrangements) by improving their job and employment security. Following the main ideas underlying the flexicurity concept, we expect that an increase in job/employment security will have more success when it is combined with more flexibility among older workers in work organisations and in the labour market.

Because of the new policy agenda on older workers, and the idea that flexibility and security can go hand-in-hand, a new arrangement of interests might be emerging. We think that the flexicurity concept can promote the willingness of actors in the industrial relations systems to restructure the traditional labour-markets institutions considering older workers and broaden the scope of the bargaining parties. Employers might be willing to support new facilities for older workers if these increase the flexibility of the labour market and workplaces. The emerging awareness that senior workers make positive contributions in terms of commitment, experience, loyalty and security of human capital might also explain increased attention for policies aimed at retaining and recruiting older workers. Trade unions and workers will be more ready to accept greater flexibility for older workers if security is ensured. A possible strategy for the trade unions is to accept some loss of income security (by reducing the benefits for inactive older workers or by hindering or postponing the admittance of early exit pathways) but to compensate this by increasing employment security for older workers.

Table 7:2 shows main strategies and arrangements in which forms of flexibility and security of older workers might be simultaneously enhanced. The table follows the matrix that is used in other flexibility literature (Atkinson, 1985; Van Schilfgaarde and Cornelissen, 1988) and flexicurity literature (Wilthagen and Tros, 2004).

Four different types of flexibility are usually identified:
(a) numerical flexibility concerns ease of hire and fire;
(b) internal numerical flexibility refers to working time;
(c) internal functional flexibility concerns jobs and tasks;
(d) wage flexibility refers to labour costs.

These different types of flexibility can be combined and balanced with four types of security:
(a) income or social security;
(b) job security;
(c) employment security (referring to the security to have paid work, but then in another job in the external labour market);
(d) combination security that concerns a good work-life balance.

We want to stress here that this figure is not exhaustive. Although we will sometimes use the term 'flexicurity-arrangements', we are aware of the fact that these arrangements do not automatically lead to well-balanced production of flexibility and security. The arrangements in practice ultimately determine whether these opportunities have the desired effects.

Some cells in the figure above stay empty, some combinations of forms of flexibility and security are contradictory to each other, and other combinations can be mutually supportive. For instance, part-time retirement aids organisational flexibility in working hours, enables a better work life balance (Eurofound, 2007) and supports longer working lives (Fouarge et al., 2004; Kantarci and Van Soest, 2008). Support for senior workers to outplace them with other employers or to start as self-employed

Table 7:2 **Opportunities to combine flexibility and security for older workers in workplaces and labour markets (not exhaustive)**

	Income security	Job security	Employment security	Combination security
Numerical external flex (hire and fire)	Early retirement benefits		Outplacement; Self-employment; Recruitment older workers	
Numerical internal flex (working time)		Part-time retirement; Reduced working hours		Part-time work; Flexible working hours
Functional internal flex		Relieve working conditions; Task rotation; Retraining	Internal job mobility; Education; Senior jobs	
Wage flex		Flexible pay	Demotion	

Source: Author.

workers can enhance organisational flexibility in the outflow of workers, as well as improving individual security to stay active in the labour market. Further, we can expect that programmes for training and education of older workers increase their employability; the functional internal flexibility as well as job or employment security for these workers. A recent empirical study confirms that more training towards the end of the career leads to later labour market exit (Fouarge and Schils, 2007). The employability of workers can also be increased by internal or external job mobility during the career. A well-known barrier to the employability of workers as they get older is that their competences concentrate increasingly on a specialised field of work. Demotion to a lower paid job can be a way to retain a senior worker in the labour market, who appears to be too costly, while this also gives options for wage flexibility for the employer.

7.3. Policies and institutional contexts in the four countries

Before presenting the findings of the survey, we will briefly discuss differences and similarities in the degree of policies that impact on older workers in our four case countries, and show that there are persistent differences in the focus on types of flexibility and security in the four countries.

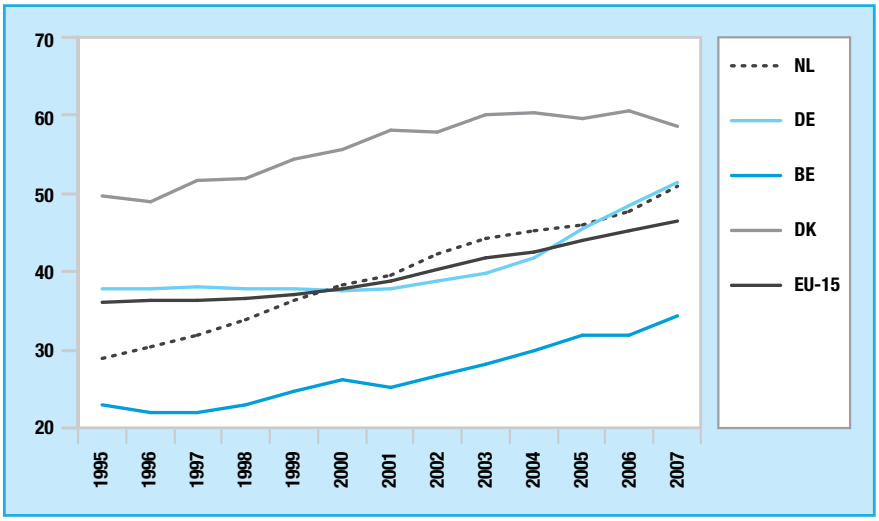
In Stockholm in 2001, the EU formulated the objective of increasing the employment rate of workers aged 55-64 to 50 % in 2010. The four countries in our study are shown in Figure 7:1; the EU-objective is not yet reached in Belgium. The figure also shows that employment rates for older workers have been increasing in the last 10 years, especially in the Netherlands. In all four countries, we see that employment rates of workers aged 55-64 have increased relatively more than for workers aged 15-54 (Table 7:3). But Table 7:3 also shows that the employment ratios for older workers are still far below the ratios in the age group 25-54 years. This gap is extremely high in the Belgian labour market.

7.3.1. **Denmark**

Compared to other EU-countries, problems with ageing and employment of older workers are much smaller in Denmark: the employment rate is by far the highest of the four (Figure 7:1). Van Oorschot and Jensen (2009) compared the Danish situation to the Dutch one and concluded that the higher employment rate in Denmark is due to the fact that older workers are

more employable because of their higher educational levels and that the incentive structure for early retirement is less generous. Also Schils (2005) concludes that Danish early retirement schemes are less generous than those in Belgium, Germany and the Netherlands, although the Danish schemes are more flexible. Further, it seems that there is less age discrimination in Denmark and that Danish workers experience more job satisfaction than their Dutch colleagues (Van Oorschot and Jensen, 2009).

Figure 7:1 **Employment rates of workers aged 55-64 in the four Member States, 1995-2007 (%)**



Source: Eurostat, labour force survey 2008.

Table 7:3 **Employment ratios of workers aged 55-64 and 25-54 in the four Member States, 1994 and 2007**

	Employment ratio 1994		Employment ratio 2007	
	25-54 years	54-64 years	25-54 years	54-64 years
Netherlands	73.7	29.0	83.6	50.1
Germany	76.2	35.9	80.2	52.0
Belgium	73.1	22.4	79.3	33.8
Denmark	80.5	50.2	86.1	58.7
EU-15	72.7	36.1	79.1	45.8

Source: OECD, 2008, p. 339-341.

The relatively high employment and participation rates have not created a lesser sense of urgency, as policy discussions take place from a rather ethnocentric position without much comparative evidence of the problem structure and magnitude (Bredgaard and Larsen, 2005).

The Danish labour market – including the position of older workers – is characterised by high levels of external job mobility, low levels of job protection and high levels of income security. This state of affairs is labelled 'the golden triangle of flexicurity': a combination of a flexible labour market, a generous welfare system and an active labour-market policy (Madsen, 2004; Bredgaard et al., 2005). Compared to the other three countries studied here, average job tenure is lower (Eurofound, 2006). Also, unemployed older workers are obliged to participate in activating and reintegration measures. The low dismissal protection and high numerical flexibility, however, affects different groups in the labour market differently. It might benefit (high-skilled) young people and women, which is indicated by low youth unemployment and high participation and employment rates for women.

For older workers the effects are more complex. There is no additional dismissal protection, and almost no extra costs associated with dismissing ordinary older workers. If older workers lose their job, it is much harder for them to find a new one, which may also be linked to the fact that they tend to get less adult vocational training than prime age workers (Bredgaard and Larsen 2005) and are partly discriminated against by employers (Jensen, 2004) ([2]). While low job protection probably tends to increase the hire volume, it also increases the number of dismissals, which may be to the disadvantage of both older and unskilled workers. Alternatively, if there are high costs associated with firing older workers, employers may be more inclined to retain them until retirement; and may not be as concerned about hiring older workers, even though they are harder to fire, as they are already close to retirement.

The Danish version of flexicurity is the outcome of a long historical process involving a series of compromises between the social partners and the evolution of a universal welfare state. The liberal regime of employment protection means that employers in Danish firms have a high degree of

([2]) A European survey on working conditions from 2000, which asked workers 50+ if they had, during the previous 12 months, either personally experienced age discrimination or witnessed it occurring at the workplace, only found 1 % occurrence of age discrimination among Danish workers; this compared to around 4 % on average (10 % in the Netherlands, 6 % in Germany, and 3 % in Belgium) (OECD, 2006, p. 67).

autonomy in personnel decisions because of liberal recruitment and lay-off procedures. Older workers are instead compensated by a well-developed state-financed system of unemployment compensation and employment security. The gap between younger and older workers in training participation is not as high as in other EU Member States and, compared to the other three countries in this study, older worker participation in education is much higher (OECD, 2007).

As in other countries, if older workers become unemployed, they have greater difficulty in returning to employment. So, the Danish case is challenged to prevent older workers being placed outside the 'golden triangle' of flexicurity.

The Danish government has changed the financial attractiveness of the early retirement scheme. The 1999 reform made it more economically attractive to stay in the labour market after the age of 60: this did not ease the pressure for early retirement reform and, recently, a new political agreement has been reached. In 2006, the liberal-conservative government concluded a 'welfare reform' with, among others, the social-democrats. The main result has been to push the early retirement age from 60 years to 62 years, and the official pension age from 65 years to 67 years. These changes will not take full effect before 2022. However, from that time there will be an automatic indexation of retirement ages in relation to average life expectancy for people at 60 years. As life expectancy is increasing rapidly, this might, in the long term, mean abolishing the voluntary early retirement pension scheme. The government has recently proposed a host of different measures further increasing effective labour supply, including an in-work subsidy for older workers who continuously remain full-time employed between from age 60 to 64 (DKK 100 000; around EUR 130 000).

A remarkable characteristic of Denmark is the relatively low activity in creating national policies for older workers. Using soft coordination, the Danish government attempts to persuade firms to develop more training and educational activities for senior workers or to create age-related personnel policies. But, following the tradition of the Danish industrial relations system, the terms and conditions of work are left to the labour-market parties themselves. It might be questioned if soft State regulation will be effective. In contrast to the Netherlands, policies on seniors do not figure prominently in collective bargaining (Bredgaard and Larsen, 2005).

7.3.2. The Netherlands

In the Netherlands, employment growth among the 55+ has been relatively high since 1995 (Figure 7:1). While the rate was just 29 % in 1994, in 2007 it had climbed to 50 %, above the EU-15 average.

It seems that part-time retirement has had a positive effect on longer working careers (Fouarge et al., 2004). Further, the participation of older workers in training and education programmes increased in the 1990s (Muffels, 2003) but, compared to other countries, the figures are relatively low (OECD, 2007). A core problem facing older workers is that once they become unemployed, it is difficult to find a new job.

Compared to the other three countries, modernisation of early retirement schemes in the Netherlands proved far-reaching. These schemes are regulated and negotiated by the social partners in collective agreements ([3]); trade unions seem to be less rigid in their approach to reforming the early retirement schemes than their colleagues in Germany and Belgium (Naegele, 2002; Van Ruysseveldt, 2005). Since the mid-1990s Dutch trade unions have supported a shift to individualisation in retirement financing and to the creation of individual *à la carte* retirement age options and part-time retirement. Since 2006, fiscal facilities for early retirement schemes have been abolished for all workers under 55. For the 55+ employees there is a transitional arrangement. This measure is partly compensated by legal facilities for individual workers to save part of their wage during the career to make it possible to retire before the legal pension age of 65. The time-credit system can also be used for study, parental or sabbatical leave. This *levensloopregeling* can be seen as a Dutch example of flexicurity, in a life-cycle perspective. There has been criticism of the limited take-up of the facility and the low opportunities for low paid workers to save salary. At the same time that fiscal facilities for early retirement schemes have been abolished, the obligation for the social partners to offer part-time pension to the workers has been introduced.

Compared to Denmark, older workers in the Netherlands have more job protection. Alongside the employers' obligation to apply for dismissal permits at the employment office ([4]), older workers were protected by legislation by the principle of 'last-in-first-out' in case of collective dismissals. Since March 2006 this principle has been changed into the principle that the dismissed workers are spread across different age categories (*afspiegelingsbeginsel*). This change will reduce the extra job protection

([3]) Around 80 % of the workforce are covered by sectoral agreements, 10 % are under company agreements (and there is no multilevel system) and 10 % have no collective agreement.

([4]) In firing workers, there is an alternative route for employers to go to court, but this is more costly.

for older workers and increase the protection for younger employees. Recently, social partners and politicians have started a discussion to make the regulation on dismissals more flexible and to limit compensation in case of dismissal.

Since the beginning of the 1990s – early compared to the other three countries – the social partners at national level (in the Foundation of Labour) have recommended activating arrangements for older workers. In 2002/03 'age aware personnel policies' were an issue in 30-40 % of the negotiations (AWVN, 2003). In collective agreements, as well as in human-resources policies, the focus is on a relief-strategy for the senior workers, and, therefore, on 'passive' job security, such as arrangements for reduction of working hours/work load, extra holidays and leave (Tros, 2005). There is no convincing evidence of an increasing active approach in the Dutch collective labour agreements (SZW, 2007).

7.3.3. **Germany**

In recent years employment of older workers in Germany increased from around 40 % in 2003 to more than 48 % in 2006 (Figure 7:1).

Wilthagen et al. (2004) argue that the security factor is prominent in the labour market and that it has proved difficult to introduce new forms of flexibility and security. Older workers confirm this picture. In the system there is additional legal protection against dismissals for older workers and there is extra job protection for them in case of operational dismissals or in the *Sozialplan* (Teipen and Kohli, 2004; Klammer, 2004). Further, collective agreements contain special provisions for older workers in case of dismissal, remuneration (for white collar workers in particular), working hours and work organisation (Bispinck, 2002; Funk, 2004; Klammer, 2004). In practice, this job security is often exchanged for income: deviation from the protection rules against dismissals can take place with financial compensation and older workers can be selected more often in the *Sozialplan* in case of operational dismissals (Teipen and Kohli, 2004). In contrast to the Dutch practice, there is more conflict between social partners on the process of dismantling early retirement schemes and the introduction of new age-related policies in collective labour agreements. In 2000 just 4 % of firms saw the age structure of their workforce as a problem for their personnel policy in the next few years (Schömann, 2006). Participation rates of older workers in education and training are very low compared to Denmark, as in Belgium and the Netherlands (OECD, 2007).

In the 1990s, government policy response to ageing and low employment of older workers was focused on restructuring the retirement and pension systems.

Step-by-step, retirement ages have been increased and pensions have been reduced: the processes are continuing. The aim of the *Altersteilzeitgesetz* (1996) is to assist part-time retirement. Employees aged 55+ are allowed to halve their working time. The employer has to top up the wage to at least 70 % and pays pension contributions at a level of 90 % of the former wage. If the firm employs an unemployed person or trainee to cover the full amount of working time lost, the employer's 'top up' is refunded by the Federal Employment Service. However, this measure has not been effective in extending working careers. The law offers an alternative with a so called *blockzeitmodell* in which the worker continues to work full-time and retire fully at an earlier age. Of firms in the private sector, 47 % offered only this block model to their workers. Many employers did not want the part-time retirement option because work organisation does not allow for this (Klammer, 2003).

Since 2002, there has been a trend towards a more activating labour-market policy for older workers (Bosch and Schief, 2005). Among other measures, the Federal Employment Service started a '50 plus' campaign and subsidies were created for 100 firms to train older workers. As one of the measures in the Hartz reforms, older workers accepting lower paid jobs are compensated in a new law on modern labour-market services. Nevertheless, use of this facility has been limited and not very successful (Brussig et al., 2006; Leschke et al., 2006). To promote recruitment of older workers, legislators have eased restrictions on the employers to use fixed-term contracts with employees above a certain age. But, as Mangold Arrest showed in 2005, the European Court has forbidden this arrangement because of age discrimination. This arrangement is contrary to the European guideline 2000/78/art.6 because it does not guarantee the protection of older workers in the labour market. Further, there are more and more initiatives in Germany to make workplaces healthier for the older employees to keep them longer in their jobs.

7.3.4. **Belgium**

Employment of older workers in Belgium is far below the EU-15 average: less than one third of people aged 55-64 years are in employment (Figure 7:1) and the participation rate is only around one third for people aged 55-64 (Table 7:2). Employment is especially low for women aged 55-64 (23 % in 2006). This is linked to the tradition of early withdrawal, which began before the employment policy of the 1970s (Merla, 2004). Literature suggests explanations in terms of the industrial characteristics of the economy and high pressure of work in compressed working careers (Tielens, 2004; Merla, 2004).

In general, Belgium is still characterised by what could be labelled 'Fordist production', a traditional balance between income security and internal-numerical flexibility (hours) (Sels and Van Hootegem, 2001). The strategy to activate older workers also focuses on the management of working hours. The government programme of 1999 and the intersectoral agreement of 2001-02 aimed towards making working hours more flexibile and shorter. A system of part-time, end-of-career jobs is seen as a way of gradually leaving the labour market. Further, the government created facilities for the 55+ and extra bonuses for the 60+ to reduce working time without financial loss. In the time-credit system, workers over 50 with 20 years in work have special rights to a reduction in working hours.

The labour market for older workers is still characterised by early exit. In general, the collectively agreed bridge pensions allow retirement at 58 years, but for enterprises acknowledged to be in financial difficulties or undergoing restructuring, there are exemptions lowering the entry age to 50 years. The pressure imposed by employers seems an important factor in early exit: of all people aged 45-65 who stopped working, 43 % were forced (Elchardus and Cohen, 2003; Tielens, 2004). For employers the bridging schemes are still a financially interesting and socially acceptable way of cutting back on staff in the context of rationalisations or reorganisations, as shown in cases such as telecom provider Belgacom, the federal and Flemish administration, postal services and carmaker Ford (Tielens, 2004). In the negotiations over a new national intersectoral agreement for 2005-06, the unions unanimously defended early retirement (Van Ruysseveldt, 2005). The trade unions find it difficult to try putting older workers (back) into employment, particularly as they think that such measures could weaken the position of older workers even further. Also, collective agreements contain advantages for older people in terms of wages, working conditions and protection against lay-offs. Wage flexibility is relatively low. Salaries, especially in white-collar pay-scales, are strongly linked to seniority and based on the model of lifelong full-time careers, whereby periodic salary increases are linked to age (OECD, 2006).

There has also been a policy shift since 2000. The age of entry to the unemployment scheme for older workers has been gradually increased from 50 years in 2001 to 58 years in 2004. Policies targeting prevention of early exit by improving working conditions and job quality, and policies on the reintegration of the unemployed 50+ in connection with the introduction of the obligation to look for jobs, have been introduced (Merla, 2004). In 2002 the right of workers aged 45+ to an outplacement

procedure in cases of dismissal was introduced. In Belgium there is a right to validate achieved competences of workers, which is important for older workers in the labour market. The national action plan 2005-08 contains various measures to promote employment participation of older workers. In 2008 bridge pensions will only allow labour-market exit at or after the age of 60 and the government announced several financial incentives to promote longer working careers and financial disincentives for early exit arrangements. Older workers have the right to regular career-check-ups and the unemployed 50+ have rights to participate in education and mediation towards jobs. It seems that the passivity of the social partners is compensated by a relatively active government in active ageing policy.

7.3.5. **Summary**

In all four cases the balance of flexibility and security as provided by early labour-market exit arrangements during the last decades of the 20th century is gradually fading away, or is at least under increasing discussion. In the four countries discussed there is a clear policy shift towards more activating forms of flexibility and security in the labour market for older workers. In the Netherlands, the national actors and sectoral bargaining parties seem the most active – and started earlier – in searching for preventive policies about early labour-market drop outs. There are some differences in focus. Belgium focuses most on working-time flexibility at the end of careers. The Netherlands looks for functional flexibility combined with job security (relieving the workplaces to prevent early exit), while Germany introduces measures to aid transitions of seniors towards other or new flexible jobs. The Danish government attempts to stimulate local senior policies by soft coordination and recommendations towards the bargaining parties at local level: the question is whether the workplaces adopt these guidelines. Our survey will give more insights into this.

We can conclude that in none of the countries is there a ‘grand design’ of ageing strategies, integrated to the underlying concept of flexicurity.

Finally, policy approaches to older workers are similar to industrial relations traditions and labour-market policies in other domains. This reflects the active role of the social partners in the Netherlands in making collective bargaining and governmental policies both innovative and of value (Wilthagen et al., 2004), the more focused approach of the Belgians towards working time issues (Sels and Van Hootegem, 2001) and the low involvement of the Danish State in the self-regulation of the social partners (Bredgaard et al., 2005).

7.4. Arrangements for 50+ workers in workplaces

7.4.1. The survey

Human resources managers ([5]) in Belgium, Denmark, Germany (the *Länder* in West-Germany, the former BRD) and the Netherlands responded to our survey. They were interviewed via telephone in 2006. We used the same questionnaire in all four countries.

In each country, the sample is stratified in four sectors of industry and in two size categories (50-99 employees and 100+ employees). The four sectors of industry are:

(a) metal and electro-technical industry;
(b) transport;
(c) education;
(d) public administration.

We selected two private and two public sectors to compare private and public. Within the private sector one represents industry and the other is the service sector.

Restrictions in the budget prevented us from making representative national samples. Therefore, we preferred to have representative data for the selected sectors in two size categories (50-100 and 100+ employees) to allow cross national analyses at sectoral level. The data presented by country are the (weighted) sum of the four sectors of industry and, therefore, not representative. For the national figures we weighted the data to reflect better the actual workplace structure over the four sectors and two size-categories in the four countries. For Belgium the data have also been stratified and weighted by the two regions: Flanders and Wallonia.

The net response rates were 22 % in Germany, 29 % in the Netherlands, Denmark and Flanders (BE) and 39 % in Wallonia (BE) ([6]).

To identify alternatives to early retirement exit at company level we asked the respondents two types of questions: whether the workplaces had a range of different types of arrangements and facilities for workers aged 50+ and how often they were used among 50+ workers. First, we look at availability (Section 7.4.3). Then we include the extent to which these facilities were used in practice (Section 7.4.4).

([5]) If there was no human resources manager, the director of management was interviewed.

([6]) This does not mean that non-response only occurs because of refusals from (representatives of) the workplaces: there were also appointments not carried out. The degrees of refusals were 42 % in Denmark, 44 % in Wallonia, 52 % in Germany, 57 % in Flanders and 60 % in the Netherlands.

Before discussing our main findings on the availability of arrangements, we briefly present some findings to describe actual personnel management practices in terms of recruiting, dismissing and retaining older workers (Section 7.4.2).

7.4.2. Recruiting, dismissing, retaining older workers

Of the sample companies, 43 % recruited older workers (aged 50+) within the last year. Almost twice as many companies in Denmark recruited one or more older workers, compared to Belgian ones. According to the respondents, the most important reasons for recruiting older workers is for specialised tasks (53 %) or to recruit an adequate number of employees (14 %): they are recruited for their individual competences and qualifications, and irrespective of age. Older worker loyalty and commitment to the workplace, as argued in general public debates, does not receive much support from the respondents (4 %); neither does the assertion that they perform better than younger workers (3 %) nor that they stay longer in the workplace (1 %).

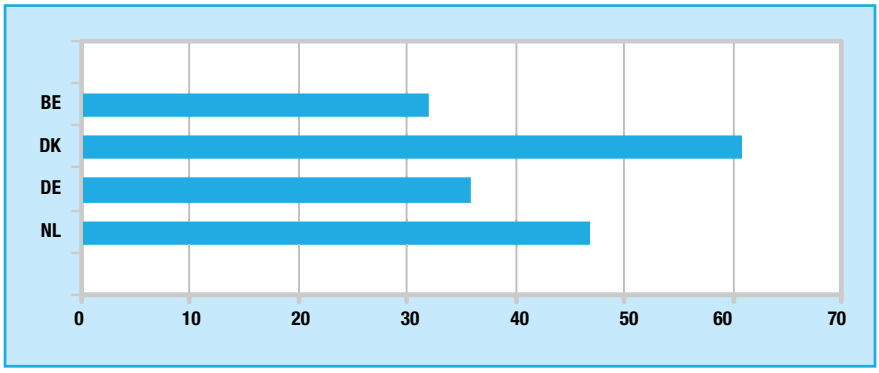
Of the sample companies, 55 % did not recruit older workers within the last year. The most important reasons given are that the workplace did not recruit any new workers and that the company did not receive any applications from candidates over 50.

Another important aspect is the criteria used for collective dismissals. If older workers are truly treated as any other employee group, we would expect the sample companies to reply that the primary criteria for collective dismissals were the 'qualifications and competences of the individual worker'. This principle is only the main principle in Danish firms and reflects the limited dismissal protection of older workers in Denmark. The workplaces in the Netherlands seem to apply more old-fashioned dismissal criteria; 22 % of the companies use 'last in-first out' (as regulated by law until March 2006 and from then on changed into the principle that dismissals have to be spread out over different age categories (*afspiegelingsbeginsel*), and 19 % of the Dutch workplaces use 'natural resignation', which means that older workers who are willing, are dismissed first. In Germany different criteria have the same impact, although 21 % of the German workplaces dismiss according to the worker's private life. This result reflects the German legislation in which the employer who dismisses a group of workers has to follow legislative procedures in which more than one criterion plays a role.

On average, one third of the sample has a specific 'senior policy' in their HRM. However, there are some interesting national differences; from 61 % in Denmark and 49 % in the Netherlands to 18 % in Belgium and 9 % in

Germany. Among the workplaces having senior policies, the most important objectives are to make work and working conditions more suited to older workers and to retain older workers (both 35 %). Making older workers more employable is less important (12 %). Although aiding early retirement does not gain much support across the board (6 % of all respondents), it is clearly an important objective in Belgium (16 %), and to some extent in Germany (12 %). In all four countries senior policies are not used to recruit older workers (only 1 % of all respondents). Finally, retaining older workers is an important objective in Denmark (53 %). We have to consider the social desirability of this question. Thijssen and Van der Velde (2003) even call it a paradox in the practice of senior policies: the most desirable policies are the less applied ones. The fact that early retirement is less desirable these days can go hand-in-hand with a high level of practice.

Figure 7:2 **Percentage of workplaces that recruited 50+ workers in 2005, by country**



NB: n=3085.
Source: HSI (Hugo Sinzheimer Institute), University of Amsterdam, 2006.

7.4.3. The availability of specific arrangements in workplaces

The focus in our survey is on specific instruments that can combine forms of flexibility and security. These can be specifically aimed at the senior workers, but can also be general facilities for the whole workforce in the workplace, which includes the 50+ employees.

As seen in Table 7:4, the facilities most available in the firms surveyed are those that create internal numerical flexibility (working time flexibility) and can simultaneously support a longer stay in the job: part-time retirement

and reduced working hours. Nevertheless, these arrangements are clearly less available in Germany. This is remarkable given the *Altersteilzeitgesetz*, introduced in 1996 by the German government to aid part-time retirement and longer working careers. But many firms did not use this model because many employers complained their work organisations did not allow for it (Klammer, 2003; Lindecke et al., 2007). Further, many trade unions defended their strategy to continue the practice of full time retirement at an earlier age.

Table 7:4 **The availability of facilities for 50+ workers by specific arrangements and country, in percentages of the firms**

	NL n=750	DE n=716	DK n=730	BE n=889	Total n=3085
Internal numerical flexibility					
Part-time retirement	68	33	78	57	59
Part-time contracts	55	46	83	67	63
Reduced working hours	72	29	68	69	60
Dispensation inconvenient working hours	48	26	45	15	33
Functional flexibility					
Plans/programmes for education	41	26	48	29	36
Job rotation/horizontal career movements (internal job mobility)	44	39	84	25	47
Specific senior jobs	19	7	15	10	13
Adaptation tasks to relieve workload	64	30	34	26	38
External numerical flexibility					
Support outplacement (external job mobility)	27	4	4	11	12
Support self-employment	9	3	4	2	4
Wage flexibility					
Flexible pay	18	26	30	5	19
Demotion towards less paid jobs	22	2	1	4	7

Source: HSI, University of Amsterdam, 2006.

Arrangements and facilities creating functional flexibility and improving the employability of older workers are widespread in the four countries, though German and Belgian workplaces have fewer, compared to the Dutch and Danish firms. The option of changing jobs within the company or to other establishments in the organisation is available in 47 % of the sample companies, but cross-country differences are large: 84 % of the Danish sample companies compared to only one quarter of the Belgian sample companies. The option of adaptation of tasks or task rotation to relieve the workload of older workers is available in one third of the workplaces in the four countries, but in almost two thirds of Dutch sample companies. In one third of the sample companies plans, programmes or agreements

for the education of older workers are available: again we find higher scores in Denmark and the Netherlands and lower scores in Germany and Belgium. The creation or reservation of specific workplaces or tasks for older workers appears not so popular. Some large companies say that these facilities have decreased since the 1990s because of outsourcing non-core activities such as cleaning, security, restaurants, etc.

An important finding is that arrangements creating external-numerical flexibility for the organisation are less available in the sample companies, even if it can be argued that these facilities are increasingly needed when the importance of the internal labour-markets decline. Mediation or other support for older workers towards jobs with other employers is a facility used only in 12 % of the sample companies, although this option is available in one fourth of the Dutch sample. Support for self-employment of older workers appears even less popular.

Most human resources managers in establishments with more than 50 workers responded that their organisation did not recruit any 50+ workers in the year 2005. Danish workplaces recruited relatively more 50+ workers. The OECD (2006) also concluded that, in some countries, hiring of older workers is particularly low, including the Netherlands and Belgium, while it is higher in Denmark.

Finally, there is also a low availability of arrangements creating wage flexibility in the sampled companies. Around one fifth use flexible pay, such as merit rating or profit sharing, for older workers, though only 5 % in Belgium. Only 7 % has a facility or arrangement for demotion towards lesser paid jobs for older workers, although more than one fifth of Dutch workplaces have this facility.

The picture that emerges from these data is that Dutch and Danish firms have clearly more facilities than German and Belgian firms in enabling flexibility and job/employment security for 50+ employees. The HRM policies in these two countries seem to be of a more preventive (especially in the Netherlands), as well a more active (especially in Denmark) approach towards older workers than the HRM policies used in German and Belgian firms.

There is just one exception to this picture: the high scores on the reduction of working hours in Belgian workplaces. This can be explained by the fact that the Belgian government created policies which enable the 55+ – and 60+ – workers to reduce working time without any financial losses. Further, in the Belgian time-credit system the 50+ workers who can demonstrate 20 years of work have special rights to reduce working hours. This specific policy for older workers strengthens the more general

picture that Belgium is still characterised by what could be labelled 'Fordist production', a traditional balance between income security and internal-numerical flexibility (working hours) (Wilthagen and Tros, 2004).

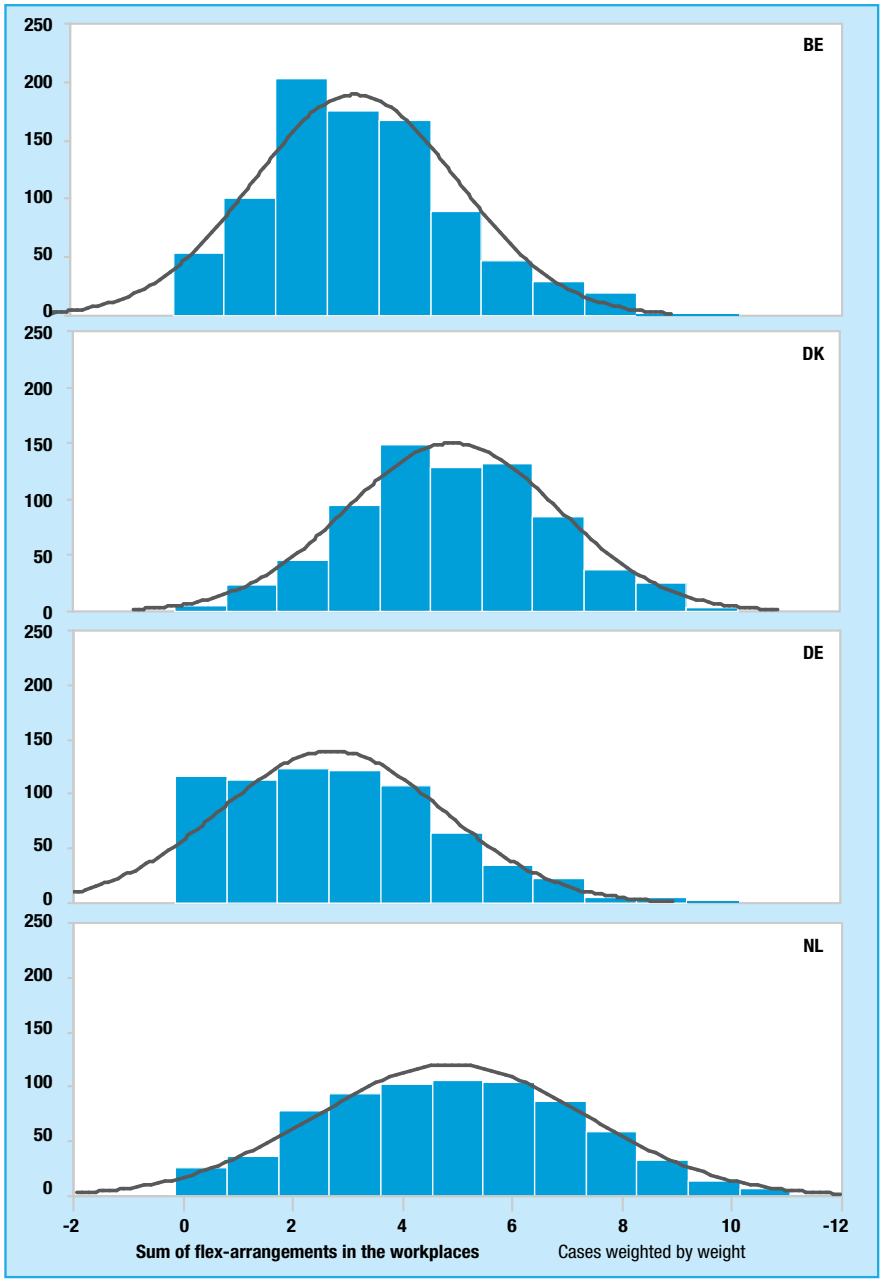
Figure 7:3 helps increase understanding of the distribution of the arrangements across companies. Most of the workplaces (70 %) have between two and six arrangements. Just 15 % have one or no arrangements at all. Another 15 % have seven to 12 arrangements. Nevertheless, we see country differences. In the German sample many companies have no or only one arrangement (the average is 2.7). In the Belgian sample many workplaces have two, three or four facilities (the average is 3.9). Compared to the Danish sample, the Dutch one shows more inequality as a substantial part of companies have either no or one arrangement, or more than seven facilities (while the average number of arrangements is the same in these two countries at 4.9).

7.4.4. Backgrounds to arrangements for older workers

The respondents were aware of creating arrangements and strategies that aid both flexibility and security. When asked to evaluate their human resources strategy and arrangements for older workers, around 70 % of them replied that they should create flexibility and security to the same level (15 % favour flexibility for the organisation, 9 % favour security for the workers). The country differences are small, although slightly more Dutch respondents favour flexibility above security. This should not be interpreted as an endorsement of flexicurity as a deliberate policy strategy for HRM, but rather as an indication that flexibility for the organisation can be combined with security for older workers. The desirability of a win-win approach in flexibility and security seems to be confirmed by the finding that around 60 % of the respondents partly or fully disagree that to create more flexibility among older workers, their income and job security must be restricted. Only 24 % fully or partly agree with this statement.

Further, we asked the respondents which type of security they find most important. In all countries, 'combination security' scores the highest: 44 % of the human resources managers find in relation to the human resources strategy and arrangements that it is most important that older workers are able to combine work with private life. This does not mean that the senior policies always consider the different characteristics of male and female senior workers. This is only done in 24 % of the workplaces in the four countries: from 17 % in Denmark to 32 % in Germany. In the firms that differentiate between older men and older women, the respondents say

Figure 7:3 **Histogram of distribution of the companies with 0 to 12 flexicurity arrangements by country**



Source: HSI, University of Amsterdam, 2006.

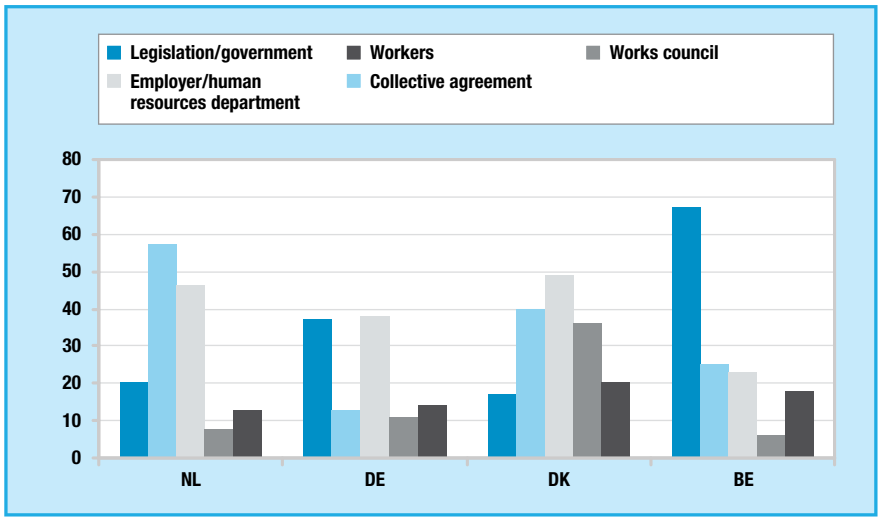
that they do this because of their different needs and, to a lesser extent, because of differences in the jobs they perform. The second most important type of security is 'employment security'; that older workers remain active in the labour market, not necessary in the same job (19 %).

An interesting question is who took the initiative to create these policies and arrangements for older workers: there are clear country differences. In the Netherlands collective agreements play a much more prominent role than in the other three countries (Figure 7:4), especially through large sectoral agreements. In Denmark the actors at company level play a more important role. The employer/human resources department acts as an initiator most often, but also collective agreements – which are mostly organised at sectoral and company levels – and the works council/workers' representative in the workplaces are important. In contrast to the Netherlands and Denmark, the main initiator of facilities for senior employees in Belgium is the legislator/government (67 %). Human resources managers in Germany see the legislator/government and the employer/human resources department as important actors in the creation of facilities for senior workers. More than one third of the German human resources managers think that national legislation is a barrier to the recruitment and the retention of older workers (39 % in German workplaces, compared to 8 % in Denmark, 15 % in Belgium and 24 % in the Netherlands).

7.4.5. **Sectoral and workplace differences**

To measure the total activity of companies in providing flexibility arrangements for the senior workers, we have constructed an additive index, including the 12 facilities as per Table 7:4. Figure 7:5 shows the average number of arrangements in the workplace by country and sector of industry. First, we see in all four sectors that Belgian and German workplaces have far fewer flexible arrangements. The sector with the lowest scores in the Netherlands and in Denmark (transport sector) is higher than the sector with the highest scores in Germany and Belgium (education sector). Second, the figure shows sectoral differences in all four countries: workplaces in the two public sectors have more facilities then the companies in the two private sectors. A third conclusion is that these cross-sectoral differences are more significant in some countries then in others. Especially in the Netherlands the variance between the four sectors is high. In Denmark and Belgium the arrangements are spread out more equally over the sectors.

Figure 7:4 **Initiators of policies and arrangements for older workers, in %, by country**



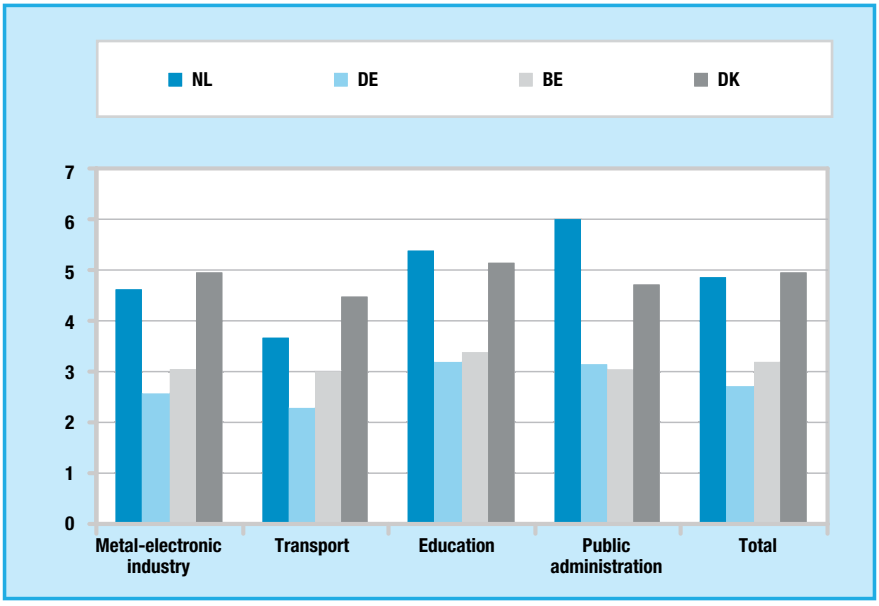
NB: • n=3085
• the percentages for one country do not add up to 100 because of the option in the questionnaire to mention more than one initiator).

Source: HSI, University of Amsterdam, 2006.

To test the solidity of the emerging cross-country and cross-sectoral variances, we used multiple-regression analyses on the number of available arrangements for older workers. In the model of explaining variables we have added workplace characteristics (Table 7:5). Literature shows that some company characteristics are important in organising flexibility at company level: company size, the proportion of older workers and the proportion of female workers (Chung, 2007; Chung et al., 2007; Leber and Wagner, 2007). Further, institutional factors such as collective bargaining, works councils and a specialised human resources department, have been added in the regression model for their relevance in initiating senior policies (Jepsen et al., 2002). First, we see high coefficients of the country-dummies in the explanation of the intensity of arrangements in the workplaces (Table 7:5), confirming that national institutional factors are important. Second, the sector also appears to be an important explaining variable, although this variable has more explanatory power in the Dutch sample than in the others. Third, we see positive correlations between, on the one hand, the size of the workplace, the existence of collective agreements, works councils/

human resources department and the proportion of 50+ employees in the company and, on the other hand, the number of flexicurity-arrangements. The proportion of female employees in the older workforce does not seem to play a significant role. We see that the workplace characteristics play different roles in the individual countries. There is high variance in the explanatory power of the regression model in the individual countries. This can be explained by the different degrees of the distributions of the arrangements among the workplaces in the countries but it seems that other workplace characteristics, not included in the regression model, also play a role in the explanation of the availability of arrangements for senior employees. The conclusion is that the influence of sectoral and workplace characteristics on the availability of arrangements is dependent on the country. Further research of the database is needed.

Figure 7:5 **Average number of flexible arrangements for older workers (maximum 12) in workplaces, by country and sector**



NB: n=3085 workplaces.
Source: HSI, University of Amsterdam, 2006.

Table 7:5 **Output multiple regression analysis with 'number of arrangements' as dependent variable**

Adjusted R Square → Independent variables:	**Total 4 countries .243**	**NL .198**	**DE .041**	**DK .126**	**BE .084**
Netherlands	.256**				
Germany	-.083**				
Denmark	.299**				
Metal-electronic industry	-.045*	-.149**	-.076	-.051	-.074
Transport sector	-.088**	-.224**	-.101*	-.120*	-.008
Education sector	.057**	-.117*	.014	.033	.046
Size of workplace (4 categories)	.115**	.179**	.142**	.013	.114**
Collective labour agreements	.076**	.101**	.045	-.059	.192**
Works council (or comparable)	.050**	.151**	.024	.008	.099**
HRM department	.070**	.071	-.029	.319**	.089*
Share 50+ (4 categories)	.037*	.065	.052	-.001	.070
Share female in 50+ staff	-.013	.044	.053	-.187**	.091*

NB: n=3085.
* significant on 5 % level.
** significant on 10 % level.
Source: HSI, University of Amsterdam, 2006.

7.5. The use of arrangements

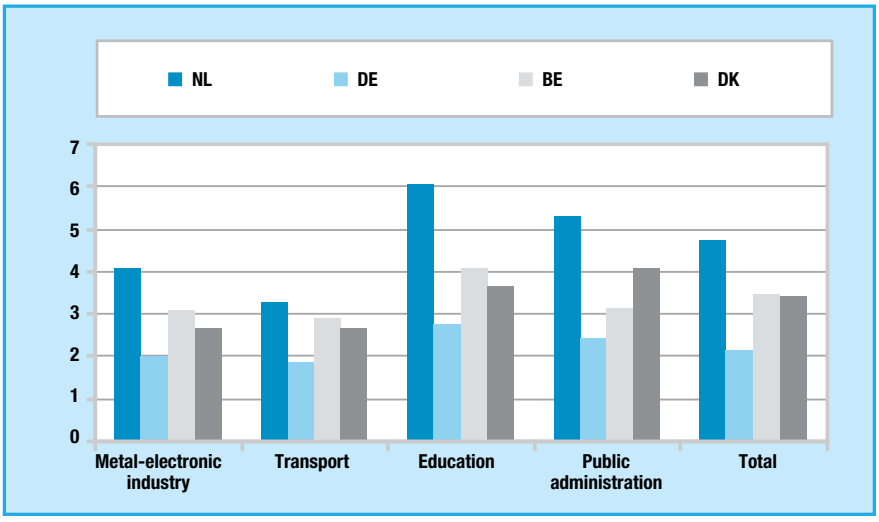
As well as asking about the availability of arrangements and facilities for older workers in the workplace, we asked the respondents how often these were used. The existence of facilities does not automatically imply that these facilities are applied in the workplace.

Some facilities appear to be used often. For example, most of the workplaces with a facility for flexible pay use this often/always among the 50+ workers. High use rates are also observed for facilities such as reduced working hours and education: 40-50 % of the workplaces with such arrangements use these facilities often or always among their senior employees. However, we found very low use of arrangements such as internal job mobility, outplacement, demotion and support for self-employment, even when there are facilities for such instruments. These four facilities are used often or always in less than 10 % of the workplaces with such facilities. We can conclude that older employees make low transitions in the internal and external labour market in all countries studied, even when arrangements for these are available in the workplace.

To measure the degree to which the arrangements are used among the 50+ workers in the workplaces, we defined an index using the facilities as mentioned in Table 7:4. If there is a facility, but it is seldom or never used, the score is 0. When it is sometimes used, we give 1 point. The maximum of 2 points is when a facility is available and often or always used. In doing so, the maximum score for a workplace is 24 points. In this case all 12 arrangements are often or always used among the 50+ workers.

Figure 7:6 shows the scores on the additive index by country and sector of industry, measuring the degree to which flexible arrangements are used in workplaces. First, we see again high cross-national differences, with higher use in the Netherlands and low use in Germany. Controlled for sector, the figure shows that the index in the sector with the lowest scores in the Netherlands (transport sector) is higher than the index in the sector with the highest scores in Germany (education sector).

Figure 7:6 **The intensity of use of flexible arrangements among 50+ workers in workplaces, by country and sector**



NB: n=3085 workplaces.
Source: HSI, University of Amsterdam, 2006.

There is an interesting difference in the ranking of the four countries between availability of arrangements and intensity of use. Danish workplaces use the available facilities significantly less than Dutch ones.

After correction of arrangements that are never or seldom used in the workplaces, the Danish scores are much lower then the Dutch ones. Together with the finding that in Belgium the flexible working hours arrangements are significantly more often used, Denmark and Belgium are similar on average with respect to implementing flexible working practices.

Second, we see cross-sectoral differences. There is more activity in the two public sectors, compared to the two private ones. The scores in the transport sectors are the lowest compared to the other three. Looking at the specific arrangements, it appears that transport organisations have very low activity on part-time retirement and on education programmes for the 50+ employees: two to three times lower than workplaces in the two public sectors.

Table 7:6 presents the average scores on every single facility by country. Here we see large variation between countries and between specific arrangements. It seems that firms follow several types of strategy to different degrees. Notable is the intensive practice in Belgium around working hours flexibility. The scores on part-time retirement and part-time contracts are even higher than in the Netherlands. Practice in Dutch workplaces can be labelled 'relief strategy' towards the senior workers for their relatively high scores on reduced working hours, dispensation from inconvenient working hours and lowering the workload. The Danish practice is clearly more focused on an activating strategy: see the relatively high scores on plans for education, internal change of jobs and flexible pay. This more active approach in Denmark is confirmed by the results of two other survey questions: the Danish firms have recruited more 50+ workers (Figure 7:2) and the 50+ workers in Danish workplaces have received more formal training ([7]).

([7]) In 27 % of Danish workplaces the majority of the older workforce received formal training or education in 2005, while this percentage is just 11 % for German workplaces (20 and 22 % in Dutch and Belgian workplaces).

Table 7:6 **The degree of the use of flexible arrangements for the 50+ workers by specific arrangements and country, mean values in range 0-2**

	NL	DE	DK	BE
Part-time retirement	.53	.23	.46	.58
Part-time contracts	.51	.34	.42	.77
Reduced working time	1.02	.20	.42	.90
Dispensation from inconvenient working hours	.58	.24	.24	.17
Plans, programmes or agreements for education	.49	.34	.69	.37
Internal change of jobs	.28	.21	.34	.15
Reservation of creation of specific workplaces, tasks or jobs	.15	.06	.14	.09
Relieve the workload	.75	.19	.31	.25
Mediation to jobs with other employers (outplacement)	.10	.02	.01	.07
Support for self-employment	.04	.01	.01	.01
Internal demotion towards lesser paid jobs	.08	.00	.00	.02
Flexible pay	.24	.32	.40	.06
Total 'flexicurity index'	4.75	2.16	3.42	3.46

NB: n=3085
Source: HSI, University of Amsterdam, 2006.

7.6. Conclusions

In European welfare States the opportunities for early retirement are decreasing, or at least are becoming less attractive and more costly for workers and employers. Therefore, activating forms of flexibility and security are needed in the labour market. This chapter has shown that national actors are searching for more preventing and activating policies. Because national policies are limited to just supporting measures or recommendations to actors at local level, it is interesting to examine activities in the workplace.

The survey shows that, overall in the four countries, those arrangements that provide working time flexibility and (to a lesser extent) internal functional flexibility are available in more than one third of the sample companies. Facilities creating external flexibility or wage flexibility among older workers are only available in a minority of workplaces. Another conclusion, valid in all selected countries, is that, even when available, many arrangements for senior workers are seldom used.

The survey results reveal large cross-country differences. Looking at the availability of arrangements, we see that Dutch and Danish companies support longer working careers to a greater extent than German and Belgian

firms. The survey results show in all four selected sectors the same gap between the Netherlands/Denmark and Belgium/Germany. The intensity of use of these arrangements varies: some in Danish workplaces are little used, while the Belgian ones are used more often. We also see differences in the forms of flexibility and security that are enforced. Danish companies follow far more a route towards activation, development and employability (education, job mobility, recruitment). In Dutch workplaces there is a 'relief strategy' (reducing working hours and workloads). In Belgian practice, older workers are largely outside the active labour market, although a strategy to make working hours flexible aims to promote longer working careers. German firms appear to be the most passive in their policies towards senior employees: this is surprising in view of the increasing employment rates among older workers in Germany but less remarkable when we know that the actors in the industrial relations system also have difficulties in other labour-market policy fields balancing security and flexibility issues.

Regression analyses show that as well as the country, sectoral and workplace characteristics play a role in the distribution of flexicurity-arrangements for senior employees. Further analyses are needed to explain why the explanatory power of these characteristics seems to be dependent on the country.

The survey results illustrate substantial variation in the initiating capacities of the actors in the industrial relations systems in this policy domain. In Denmark, local actors are relatively effective in implementing flexible arrangements for older workers (human resources departments, works councils and trade unions in decentralised collective bargaining). In the Netherlands, however, the employers' organisations and trade unions in sectoral agreements appear to be important in initiating senior policies. The Belgian and German companies in the sample show lower autonomous power in initiating flexible arrangements for their senior employees. In contrast to the German companies, Belgian firms use government facilities on flexible working hours and flexible retirement a good deal. These findings on policies for older workers seem to confirm the impression that a flexible multilevel system of industrial relations such as that in Denmark (Due et al., 1994; Wilthagen et al., 2004; Andersen and Mailand, 2005) is a better condition for creating flexicurity strategies than a system as in Germany in which the actors in the industrial relations system work more autonomously on separate levels (Klammer, 2004; Lindecke et al., 2007; Naegele, 2002; Wilthagen et al., 2004).

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PART III

Breaking traditional patterns: extending working lives and working past retirement age

To work or not to work: motivation for work after reaching retirement age
Zdeňka Šímová

How does the option to defer pension payments affect the labour supply of older workers in Denmark?
Anna Amilon and Torben Heien Nielsen

Perception of age, expectations of retirement and continuing education of older workers
Bernhard Schmidt

Working on: choice or necessity?
Pamela M. Clayton

8. To work or not to work: motivation for work after reaching retirement age

Zdeňka Šímová

ABSTRACT

In 2005-07 a study was carried out aimed at examining and evaluating current and expected conditions of older people's employment. The focus was on worker rationale for staying in employment longer, the possibilities of promoting employment of older workers and on the analysis of the circumstances that promoted longer working lives. After presenting a short theoretical and methodological overview, peoples' basic motivation for staying active longer is examined. Then the main decisive factors are analysed: finance, satisfaction at work, health, expected satisfaction in retirement and employer preferences. The key role of education as an underlying supporting factor is discussed. The final section presents possible policy implications.

8.1. Theoretical background and research perspective

8.1.1. Demographic challenges

Population ageing is one of the most important challenges currently facing developed countries (Siebert, 2002; Bond et al., 2007; and others). In recent years the Czech Republic has also seen an acceleration of the population ageing process, although the demographic structure of the Czech Republic population is currently still favourable from an economic perspective – the share of working age inhabitants (15-64) is at a very high level (71.2 %) ([1]) in 2007 – because the generation of the 1970s baby boomers have entered the labour market, while post World War II baby boomers have not yet retired. However, forecasts are alarming. The gradual retirement of the post World War II baby boomers will worsen the situation considerably and a continuous decline in the working

([1]) *Source*: Czech Statistical Office (www.czso.cz), 2008.

age population is expected from 2009 onwards. The proportion of working age people (15-64) is projected to drop to 66 % in 2020 and 56 % in 2050.

According to the mean variant of a demographic projection for the Czech Republic (Czech Statistical Office), the number of people aged 65+ will more than double by 2050, whereas the number of the oldest people (85+) will be even five times higher than it is now. The number of children aged 0-14 will fall by over one quarter.

Further, the past decade has seen a trend of a falling number of employees in the youngest age cohort (the employment rate of people aged 15-24 dropped from 46.9 % in 1993 to 28.4 % in 2007) ([2]), because the number of secondary school students and students of higher education institutions is rising rapidly. This trend is likely to continue in the future.

In recent years the Czech Republic has adopted several isolated measures that aim to boost the employment of older people. An amendment to the Pension Insurance Act from 2004 has allowed unlimited concurrence of old age pension and paid work (with the precondition of entering into a fixed-term employment contract for a maximum period of one year). The new Labour Code (from 2006) created room for employer and employee representatives to agree on various benefits for older (as well as other) employees within collective bargaining agreements (or internal guidelines). However, no systemic solution has been adopted.

The measures that have been taken seem to have partly contributed to rising employment in the group of people aged 55-64, from 31.3 % in 1993 to 36.2 % in 2000 and 46.0 % in 2007 ([3]). However, there is still a very low proportion of people working part-time (4.4 % of the population of people aged 15-64 in the Czech Republic in 2007 compared with the EU-27 average 17.6 % ([4]). Although the rate of part-time work rises with age, even employees in pre-retirement age still predominantly work full-time (87.5 % in 2000, 91.2 % in 2007) ([5]). Obvious reasons for this are that individuals attempt to maximise their income to obtain maximum pension rights while employers are reluctant to provide part-time contracts.

The government of the Czech Republic has responded to the challenges of an ageing population in a strategic document entitled *National programme of preparation for ageing*. The first document covered the period 2003-07

([2]) *Source*: Czech Statistical Office (www.czso.cz), 1993-2007.
([3]) *Source*: Czech Statistical Office (www.czso.cz), 1993-2007.
([4]) *Source*: Eurostat database, LFS, 2008.
([5]) *Source*: Czech Statistical Office (www.czso.cz), 2008.

and in 2008 its updated version was adopted for 2008-12. In line with pan-European trends, this document includes the principles of active ageing, mainstreaming and adopts a life cycle perspective. The conclusions and final recommendations from the surveys presented in this chapter served as one of the starting points for the preparation of the extended version of the strategy in 2008 (MoLSA, 2003; 2008).

8.1.2. **Active ageing concept**

Due to advances in medicine and the improvement of general living conditions, future generations of seniors will be healthier and will have a higher life expectancy. Education progression trends imply that they will also have higher educational attainment. The active ageing concept, supported within the EU as well as by the United Nations and other international organisations, responds to these trends (United Nations, 2002). This concept is based on a change of the attitude of society towards seniors. The core idea is that a society should provide seniors with support ensuring full participation in social life based on their own choice and individual potential. Older people should be able to fill their lives with activities which could be beneficial for society as a whole, be it by continuing their working life in a suitable way or by engaging in other community-beneficial activities such as volunteering, care activities, cultural activities, etc. Thus, the active ageing concept tries to prevent negative social impacts of a changing age structure of the population by mitigating the burden on the social security and healthcare systems. At the same time it aims to contribute to improving the quality of life and wellbeing at all ages.

8.1.3. **Mainstreaming ageing concept**

In societies undergoing globalisation, sustainable development may only be achieved by considering the interests of all social groups, including older people. Mainstreaming ageing into global agendas is called for by the Madrid international plan of action on ageing 2002 (United Nations). In this context, mainstreaming ageing is a concept for political action towards inclusion of older people issues and perspectives in political development, plus raising public awareness with the aim of creating a ‘society for all ages’. It involves a shift in political thinking, whereby older people are not regarded as a separate marginal group that requires specific treatment and for which specific policy is prepared within the overall social policy package; rather, the old age perspective becomes an integral part of the creation of all policies across all sectors (Vidovićová and Gregorová, 2007).

8.1.4. **Life-course perspective**

This concept has recently been promoted across social and medical sciences, notably those involving old age. Although old age often tends to be defined as reaching a certain age (50+, 60+, 65+), ageing is a lifelong process, which begins before we are born and continues throughout the entire life. It is not possible to understand fully what old age means unless we understand it as a part of the entire course of human life (Moody, 2006). The most important preconditions (psychological, social and socioeconomic) for individual attitudes towards active life at old age are developed throughout our lives. Therefore, issues surrounding old age cannot be researched without examining the whole life cycle of a given generation. The life-cycle perspective adds new dimensions to social research: it analyses individuals within a wider context of development of the society and personal history related to it. It examines society as a comprehensive system where various age groups coexist in common interdependence. It tries to search for answers and solutions, not only for the present situation and an isolated group, but looking for a way of affecting individual development from the very beginning and tries to prevent undesirable negative phenomena. This attitude also highlights equality (mainly intergenerational) and the necessity of inclusion of all age groups in social and economic life (Bovenberg, 2007).

8.2. Research design and methods

In the years 2005-07 a study was carried out aimed at describing and evaluating current and expected conditions of older people's employment, especially with regard to the possibilities of promoting employment of older workers and analysing the circumstances of their longer working life. The project aimed to identify potential solutions and measures in areas that have a major impact on the employment of seniors.

The study was commissioned by the Czech Ministry of Labour and Social Affairs to gather background information for policy development. The project was led by the Research Institute of Labour and Social Affairs (VÚPSV) and field questionnaire surveys were done by a private company (Markent). The National Observatory of Employment and Training (NOZV) was involved particularly in research issues related to education and training.

Several field surveys were carried out:

(a) one focusing on the attitudes and experience of individuals aged 15 to 74 (representative sample of population of the Czech Republic aged 15-74, n=1676);
(b) one focusing on the attitudes and experience of older employees (representative sample of employees aged 50-64, Czech Republic, n=715);
(c) one focusing on the attitudes and experience of employers (representative sample of employers with at least seven employees, Czech Republic, n=1 032);
(d) a qualitative survey among experts at labour offices (summary of detailed analytical reports provided by six selected regional offices).

Other applied methods included secondary analysis of national literature, relevant foreign materials, previous research and surveys, and statistical data. The project also involved roundtable discussions with experts from selected labour offices.

8.3. To work or not to work

First, a question on a fundamental human motivation may be raised: to work or not to work in old age? What will people do when they can choose freely without being influenced by external factors? Is the willingness of people to work at old age determined by internal motivational factors or is it a necessity that follows external conditions and, therefore, a result of external motivational factors?

The survey results show that most respondents, regardless of age, did not wish to work at all after 65 (63 %) and that 30 % would prefer a combination of a pension with paid or voluntary work. Only 7 % of respondents would opt for a full-time job even in old age, should they be able to decide regardless of circumstances. These people can be described as having an internal motivation to work. It may be assumed that for the others (93 %) external factors determine whether or not they would continue working.

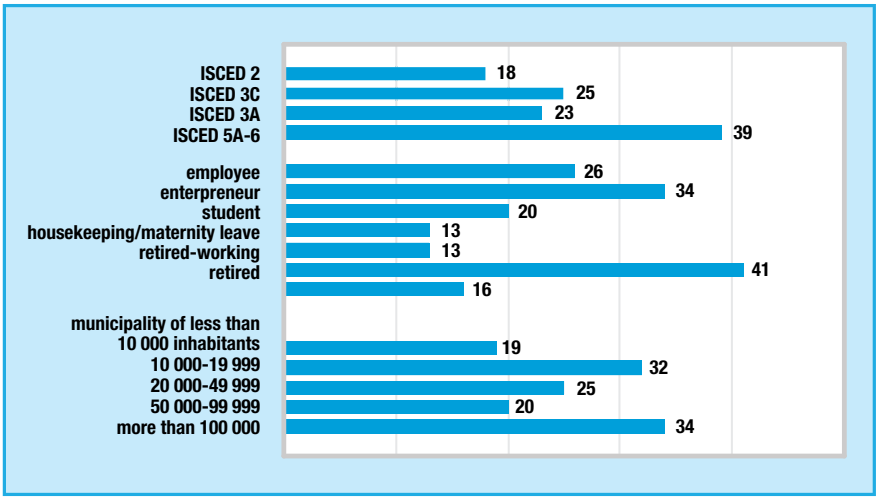
The group of people willing to work at old age are predominantly from four categories: those currently working (employees, entrepreneurs and working pensioners), with university education (ISCED 5A or 6), aged 30-39, and living in larger cities.

The motivation to work in old age for people who were working when they were interviewed may reflect the fact that these people cannot imagine that this situation will ever change. However, unemployment can reduce

spontaneous willingness to work in the future. Similarly, respondents aged 30-39 are people in active working life with ample energy, which probably boosts their willingness to continue working in the future. The difference between large cities and smaller towns or rural areas may be explained by the fact that people residing in the latter either more often see an alternative in living a relaxing life (involving, for example, working around the house or garden) or that their working life involves commuting or lower earnings compared with big cities, making employment a less attractive option.

A close link of favouring employment with educational background is also shown. The higher the education level, the more frequent were statements expressing spontaneous motivation to work (such as 'I enjoy going to work', 'I am not that old not to be able to work', 'I would like to work as long as I can, as long I am strong enough for it').

Figure 8:1 **Respondents' willingness to work after reaching the age of 65 (in %)**



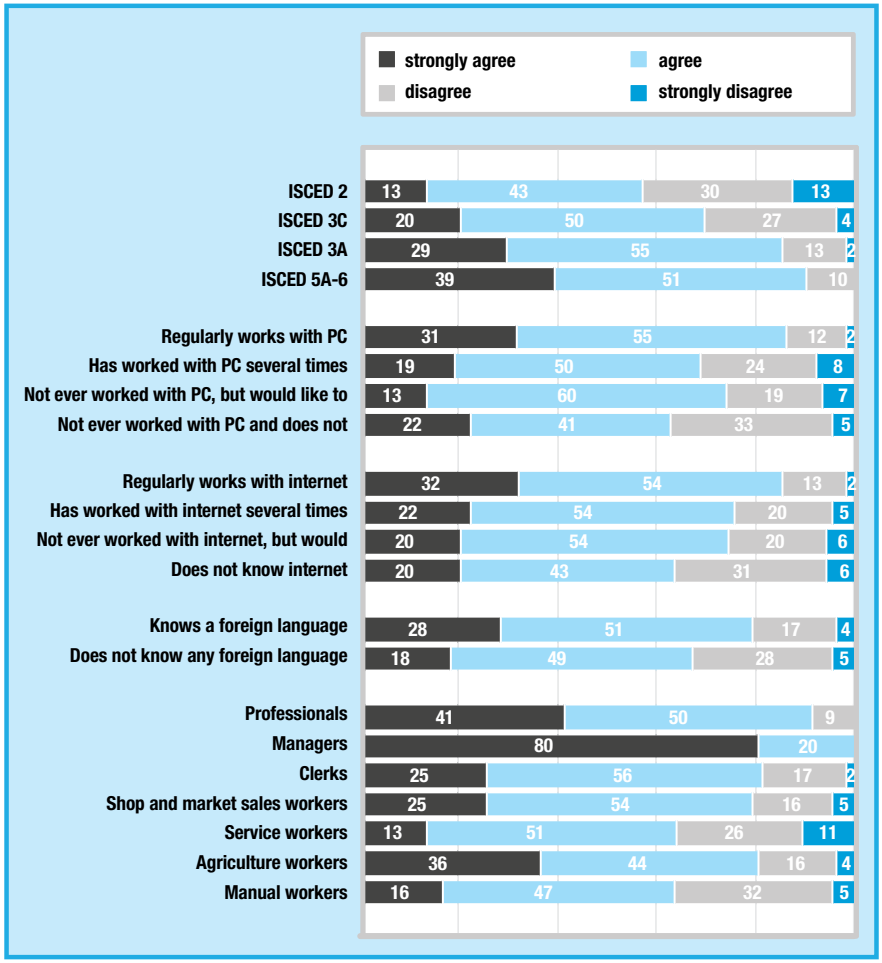
Source: Remr and Kotíková, 2007.

Figure 8:2 shows the extent to which people agree with the statement 'I enjoy going to work'. Positive answers were more commonly given by people who can handle a PC and the Internet, who master at least one foreign language and who are experts or in executive positions. In all cases these

features are closely linked to people's education level. Disagreement was voiced more frequently by manual workers and service employees.

Logically, agreement with statements expressing opposite motivation ('I look forward to retirement' and 'I am too old to work as hard as I did when I was young') decreased with rising education level. The main agreement with those statements came from industry employees, which may reflect higher representation of physically demanding or stereotypical work.

Figure 8:2 **Agreement with the statement 'I enjoy going to work' (in %)**



Source: Remr and Kotíková, 2007

If willing to work past retirement age, most people would prefer the following working conditions: maximum one hour commuting time to work, same or higher remuneration for work, and work involving low responsibility. In other words, they would prefer working life with 'relaxing' qualities.

These findings were confirmed by answers to a question on what respondents aged 50-54 would be willing to do to find a new job if they lose it. Most of them wanted their peace and quiet and would be willing to accept only activities that are not overburdening. Three out of four respondents would be willing to work part-time, but only one in three would be willing to learn a new language; one in four would be willing to commute to work more than one hour a day and only a few individuals would not mind moving house.

The fact that spontaneous motivation to work and to retire are not mutually exclusive was confirmed by findings within a sample of employees aged 50-64. Two thirds were looking forward to retirement, even though three quarters enjoyed working. Nine out of 10 respondents felt that they are not too old to work in general but one in two felt too old to work as hard as they used to do when they were young. This shows that the attitude of most older employees is not explicitly pro or contra working, reaffirming the importance of external factors that may play a decisive role in influencing the final decision.

Internal motivation becomes more important in unemployment. For the labour office, motivation and willingness to work are relatively fragile mainly at old age. When older people lose their job, they tend to find a new one with far greater difficulty and stay unemployed longer. At the same time, they find it much harder to cope with such facts than younger age groups. In the Czech Republic (as in other post-communist countries) this lack of ability to cope is amplified by the fact that older generations lived most of their lives in a centrally planned economy, where losing a job existed only as a socially marginal and 'defective' phenomenon as the State ensured jobs for the whole population. In contrast with younger people, seniors are not used to losing their certainties and prospects. They perceive unemployment as a defeat and have to combat feelings of uselessness or worthlessness. According to labour office experts, most seniors suffer from lower self-confidence and fear failure in a new job or training; they are also not used to changing their profession, which causes difficulties for those with manual professions or lower administrative positions. We may also assume that older workers may be more stressed by fierce market competition. Aggravated mental conditions related to a difficult situation makes these people lose their motivation to search for a new job, which creates a vicious circle that further reduces the possibility of finding suitable employment.

8.4. Why work? Motivation for employment

8.4.1. **Finance: 'I want to maintain my standard of living'**

The need to earn more money and to maintain a certain standard of living ranked highest among the reasons for staying at work, as retirement typically involves a drop in income. For the purpose of this chapter these two reasons may be seen as different forms of the same motivation, since both aim at essentially the same thing, namely to maintain a certain income level. Most people saw the 'possibility to earn more money' (98 %) and the 'possibility to maintain a standard of living' (94 %) as sufficient reasons for staying at work beyond reaching retirement age. Seven out of 10 respondents (those respondents who had not yet reached retirement age and did not receive early old age pension) clearly recognised that if they want to maintain a decent standard of living, they will be forced to continue working after retirement age. Working pensioners also most commonly stated that they continued working after retirement age to earn more money and to prevent their standard of living from deteriorating.

The same answers were given by employers when asked to evaluate, on the basis of their experience, the most frequent reasons why their employees were working beyond retirement age. Financial aspects constituted the most important rationale (95 %). When selecting and ranking the most important reasons, finance was ranked first by 62 % of employers and standard of living by 34 % of employers.

Labour office experts also viewed financial factors as the main motivation for older people to remain employed. Due to the positive correlation of education level and income, this factor is presumably the strongest for people with higher education levels. That is also why early retirement among higher educated individuals is rare, and only occurs in exceptional cases involving reasons such as medical problems.

8.4.2. **Satisfaction at work: 'I like to work'**

Other factors as well as financial also affected the motivation to stay at work beyond retirement age. These factors may be grouped under the heading of 'satisfaction at work'. Working pensioners, for example, stated that they enjoyed work, that it made them feel useful, and that they liked to meet people, etc. Motives of this category are mostly internal in nature: for some reason work transmits a feeling of satisfaction to such people.

In the case of older people, internal motivation often concerns social motivation. Eight of 10 respondents believed that the reason for working in old age is the need 'not to lose contact with people' or 'to be useful'. Another type of motivation

is linked to the need of personal development or satisfaction: seven out of 10 respondents stated that 'they enjoy work'; 'they do not want to give up work activities' or referred to 'a possibility to find self-fulfilment'.

This picture is confirmed by employer experience. They viewed contact with people (87 % of employers) and usefulness (83 % of employers) as important reasons for remaining employed and ranked them directly behind financial motivation.

According to labour office experts, the type of motivation is highly dependent on the individual and most notably on educational attainment. Among people with higher educational attainment there are often individuals continuing work in an attempt to continue enjoying self-fulfilment in their field of work, to stay engaged in active life, to utilise lifelong experience, or to continue enjoying satisfaction with their present job.

8.5. Why not work? Motivation to retire

8.5.1. **Decreasing physical condition: 'I cannot work'**

The reasons most cited for leaving a job, sometimes even before retirement age, were poor health or lower performance levels. We believe that these two reasons may be considered as one factor: deteriorating physical condition. This is an external motive, as it does not depend on personal preferences. Nine out of 10 respondents believed that overall tiredness, exhaustion from work, health problems or unsatisfactory health condition are among the most serious reasons for early retirement. According to older employees (aged 50-64) health problems (or decreasing performance) are indeed the most frequent life problems their group came across. They were quoted spontaneously by approximately half of the respondents.

Health conditions constituted one of the two main reasons given by early-retired respondents (the other reason was 'cutting down of the number of employees'). This finding may be partly due to the fact that in the Czech Republic many seniors make use of sickness benefits when they cannot (or possibly do not want to) find a new job before retiring, which implies they retire from sick leave. However, this assumption is hard to verify in practice because it is difficult to prove if a person taking sick leave really required it for bad health or not. Nevertheless, health reasons tended to be given most frequently by employees aged 50-64 who are considering early retirement. Out of 229 reasons (46 different ones) cited, health problems (48) and tiredness and exhaustion (35) were most frequent. Related reasons include hard work (13) and high work pace (3).

Employers often stated that a performance reduction related to health deterioration is a disadvantage of older employees when compared with younger ones. Health condition was the most frequently cited reason for applicants aged 50+ refusing a job, followed by demanding work. It should be noted that average scores on the scale used by employers to evaluate the listed reasons (1=never and 4=very often) were not very high: 2.62 for health reasons (the highest score) and 2.48 for demanding work (the second highest score). This means that older people did not very often refuse a job offer on any grounds. However, if they did so, the most common reason is their health. Business entities (compared with non-business entities) and enterprises offering mostly manual work quite often experienced rejection of a job on health grounds and on grounds of demanding work. In the agricultural and forestry sector, demanding work was also a frequently cited reason for refusing a job.

Employers also evaluated 12 obstacles for working in old age in their company. The most important obstacle was changing requirements for work performance, followed by wage requirements and an inability to absorb changing demands for professional knowledge. Inadequate physical strength and high sickness rates were an impeding factor, mainly for companies in which manual work prevails. Employers also indicated overall tiredness of employees (exhaustion) and health problems, both reported by 81 % of all employers. When choosing the most important reasons, overall tiredness was most often ranked first (33 %), followed by health problems (22 %).

The opinions of employees and employers are confirmed by labour office experts. They perceived health to be one of the key factors hampering the employment of older people and agreed that overall health condition strongly influences early retirement decisions. Adverse health conditions among unemployed seniors may not only be the cause, but also a consequence of difficulties experienced when looking for a job. Older people find it much harder psychologically to bear unemployment and suffer from health problems as a result.

8.5.2. **Expected satisfaction in retirement: ‘I like not to work’**

Other – mostly more optimistic – motives leading people to retire can be classified as positive internal motivation, namely expected ‘satisfaction in retirement’. They appeared in two main variants in the surveys. Partly these motives were family-related: wanting to be with the family and taking care of family members would be a reason for retiring according to seven of 10 respondents. People considering early retirement rated the reason ‘I want to

enjoy my family and grandchildren' as fourth, quoted 13 times: a total of 229 reasons were given, of which 46 were different. Six of 10 employers stated that taking care of family members was a reason for early retirement by employees. The second variant concerned motives related to personal self-fulfilment of a different nature than self-fulfilment at work. People considering early retirement stated the need to enjoy life and to engage in activities such as hobbies and travelling as the third most frequent reason (28), behind health problems and overall tiredness. It may be inferred that this motive was perceived as relatively strong by the individuals concerned. However, both employers and labour office experts indicated that taking care of a family was a more important motive.

8.5.3. Lack of interest shown by employers: 'they do not want me to work'

The key reason for the low rate of employment among older people in the Czech Republic is probably a lack of interest on the part of employers. There is a predominant conviction in society that employers show no interest in people having reached pre-retirement or retirement age, even though many of these people are motivated to continue working after this time. According to nine out of 10 respondents the most important reason for early retirement was that persons at pre-retirement age lose a job and fail to find another one, regardless of whether they have been made redundant by the employer or whether they are unable to find a suitable job. Out of 10 respondents, eight believed that employers prefer young people and exert pressure on people around pre-retirement age to make them leave their positions.

The survey among early-retired people partly confirmed these opinions. They rated cutting down the number of employees and the cancellation of specific jobs as the second most frequent reason (after health conditions) for leaving their jobs. But few (4 %) older working employees felt pressured by their employer.

In contrast to other respondents, employers did not see cutting down the number of jobs as a frequent reason for early retirement: from 13 quoted reasons it only ranked eighth. Nevertheless, the survey carried out among companies showed that only a small portion of organisations would employ older people and retirees if they had another option (Table 8:1). It is possible to infer the largest perceived weaknesses of older employees from other answers given by employers. These included lower capacity to comply with changing requirements for professional knowledge (or performance) and high wage requirements compared to what employers are willing to offer. Employers would welcome employees aged 50+ with higher qualifications, more professional knowledge

and skills, and better ICT skills. Mastering ICT skills, plus better foreign language competence, was required mainly by employers offering non-manual positions. In companies where manual occupations predominate, employers would welcome a lower sickness rate and better physical condition of older employees.

Table 8:1 **Giving preference to groups of employees for jobs**

Group	Share in %	Group
Graduate	70 : 30	Older employee of pre-retirement age
Young person with a family	66 : 34	Woman shortly after maternity leave
Graduate	92 : 80	Pensioner
Older employee of pre-retirement age	20 : 80	Young person with a family
Woman shortly after maternity leave	40 : 60	Graduate
Pensioner	8 : 92	Young person with a family
Older employee of pre-retirement age	46 : 54	Woman shortly after maternity leave
Young person with a family	67 : 33	Graduate
Pensioner	8 : 92	Older employee of pre-retirement age
Woman shortly after maternity leave	83 : 17	Pensioner

Source: Remr and Kotíková, 2007.

To some extent, older employees (aged 50-64) were also aware of their shortcomings in terms of qualifications. A lack of foreign language and ICT skills was seen as the third most important problem of this age group (after health and lower performance). In relative terms, however, this issue was not viewed as truly problematic: only two of 10 respondents perceived these skill gaps as a problem.

At the same time employers are not willing to invest in training older workers. Fewer than 7 % of employers answered that investing in employees is effective for them without limitation throughout the entire duration of employment. All other employers set an age limit, mostly 50 years (15 %), 55 years (21 %) or 60 years (20 %). Only 12 % of companies believed it is effective to invest in training employees aged 64+. The age limit up to which employers regard investing in training as effective was positively affected by the influence of: trade unions, size of the company (the larger company, the higher the age limit), preparation of a human resources development plan in the company and being a non-business entity.

A certain discrepancy in the thinking of employers became apparent here. Although a substantial proportion of employers states that insufficient qualifications constitute a major shortcoming among seniors, they largely perceived investing in their further training as inefficient. It may be concluded

that they would appreciate older employees already in possession of the proper professional qualifications and that they do not consider training them at the company's expense.

The employer survey revealed another interesting connection. Companies whose salary guidelines respect the seniority principle (i.e. the longer employees are with the company, the higher their salary) had far more working pensioners among their employees. This can be explained by higher financial motivation of older employees and indicates that a culture of valuing seniors is probably applied in such companies, evidenced by the fact that older workers are not displaced or replaced by younger employees. The seniority principle was built into salary guidelines in less than one third of all surveyed entities (31 %). It was mainly applied in non-business entities, entities with trade union influence and those active in sectors producing 'professionally demanding services and personal services'.

One major effect of the lack of employer interest could also be inferred from corporate answers to the question of why seniors refuse a job offered to them by the company. The average scores given to various reasons for refusing a job were low (ranging between 1.60 and 2.62 on a scale of 1-4, where 1 meant a given reasons did not exist in the company at all and 4 meant a given reason was witnessed often), which implies that seniors in general rarely reject jobs. This means that rejection by employers is the main reason why many of them cannot find a job.

The way employers assess older employees' performance compared with younger workers may serve as a guideline for counselling and assistance in older people's employment. Based on that we may infer what qualities older applicants need for their career and attractiveness for the employer and in what areas they have to be supported to remain competitive vis-à-vis younger workers. The strongest requirements of employers that would make employees aged 50+ more attractive were high qualifications, expertise and skills and mastering ICT. Employers would also be far more interested in older employees if they had the opportunity to apply lower taxes and wage deductions. Only four in 10 employers stated that older employees would be more attractive for them if they were willing to work for less money.

According to labour office experts, employees aged 50+ can offer long-term work and life experience, higher responsibility, accuracy and loyalty to the company, more prudent decision-making, reliability, lower probability of moving to another employer (they tend to value their job more) and more time flexibility (owing to fewer family duties). However, the experts stated that there are some issues that aggravate the outlook for seniors in the labour market, which tend

Table 8:2 **Extent of agreement with a given feature in employees aged 25-35**

Features	Mean *
Have good health	1.60
Have PC skills	1.72
Can get used to technological changes	1.75
Are willing to pursue further education	1.81
Are willing to commute	1.86
Are efficient	1.91
Are willing to work overtime	1.98
Are reliable	2.20
Are willing to do shifts	2.23
Are loyal	2.28
Have language skills	2.31
Have good work habits	2.40
Are willing to pass on acquired experience	2.43
Are experienced	2.72
Are willing to accept even a less attractive activity	3.09
Are willing to work part-time	3.32
Have low wage demands	3.92

* Scale of 1-5, where 1= completely agree and 5= completely disagree
Source: Remr and Kotíková 2007.

Table 8:3 **Extent of agreement with a given feature in employees aged 50+**

Features	Mean *
Are experienced	1.47
Are reliable	1.59
Are loyal	1.75
Are willing to pass on acquired experience	1.80
Have good work habits	1.94
Are willing to work overtime	2.01
Are efficient	2.09
Are willing to commute	2.20
Are willing to do shifts	2.31
Are willing to accept even a less attractive activity	2.44
Can get used to technological changes	2.57
Are willing to work part-time	2.67
Have good health	2.68
Are willing to pursue further education	2.82
Have PC skills	3.02
Have low wage demands	3.30
Have language skills	3.72

* Scale of 1-5, where 1= completely agree and 5= completely disagree
Source: Remr and Kotíková 2007.

to be persistent due to mutual interconnectedness of risk factors. These factors include low educational attainment, lower physical performance, unwillingness to pursue further education, lower ability to adapt to changes, missing skills for using new technologies, insufficient language skills, insufficient computer literacy, lower flexibility related to changes of applied work procedures, health problems affecting job performance and more frequent sick leave, negative work stereotypes acquired in previous jobs, higher financial demands and an unwillingness to work in a lower work position.

However, the views and beliefs of labour office experts may be biased to some extent, as they predominantly come across unemployed seniors, often long-term unemployed, without being much exposed to successful older workers that are able to work beyond retirement age.

8.6. Educational attainment as a decisive factor

The motivation that determines staying at work or retiring is of a different nature for various social groups of respondents and highly dependent on education level. The basic individual interest in employing seniors is related to educational attainment: a total of 66 % of university graduates (ISCED 5A or 6) are at least occasionally interested in these issues, compared to only 35 % of citizens with only elementary education (ISCED 2A).

Education affects more factors simultaneously that subsequently transfer into a higher preference to remain employed. Higher educational attainment results in a higher probability of a better (and hence better paid) job, which boosts financial motivation as well as a feeling of personal job satisfaction. In this case, retirement leads to a far more significant drop in the standard of living. Conversely, lower qualification means a higher probability of a manual job, which also results in a higher risk of physical stress and tiredness, which may lead to more frequent health problems, an inability to maintain high pace of work and a lower job satisfaction in the case of stereotypical work. Combined with the fact that the drop in the standard of living accompanying retirement is not so stark there is a noticeably higher motivation to leave work. This means that education is a key factor which, next to possible direct influences, has a major indirect impact on retirement by impacting on those factors that influence the retirement decision.

All labour office experts agreed that education is a decisive factor underlying the employment of seniors. While health problems have a negative effect on employment with rising age, higher educational attainment strengthens the

position of seniors in the labour market. University graduates having specific expert knowledge in managerial positions represent an exception to this rule among older job applicants. There are very few suitable job opportunities for them. Typically, these people suffer from excessive qualifications or one-sided – and nowadays obsolete – high qualifications, which goes hand-in-hand with their lower interest in lower level jobs or possible re-qualification for a new job.

People who systematically used self-directed learning throughout their career have a high level of expert knowledge which is also up-to-date at old age. The opportunity to have non-formally acquired expertise formally recognised is also of key importance: Some seniors may offer long-term experience in their field of work, but if they are unable formally to prove their expert knowledge, it limits their potential in the labour market.

Seniors in the Czech Republic showed a relatively low willingness to pursue further training or changing their present qualifications. A staggering 62 % of them did not want to pursue further training at all. A major barrier quoted by 57 % of those respondents was that they see no reason for engaging in training. These attitudes can partly be linked to another type of stereotypical behaviour associated with older workers, giving priority to what they already master. Lack of time and the conviction that it no longer pays to spend money and time on their training in a context of upcoming retirement represents another barrier. Yet another reason for the reluctance to be involved in training is low self-confidence and unwillingness to learn or tiredness (Czesaná and Matoušková, 2006).

Interest in further training is also directly related to educational attainment. The higher education level, the higher is the expressed willingness to pursue further training. People with low educational attainment showed considerably lower interest in further training and, if they were willing to be involved in learning programmes and training, they preferred short-term ICT training. According to labour office experts, however, seniors, compared with younger people, show more interest in advisory services that help them to find their way in the labour market, motivational activities and professional job diagnostics. This is a relatively neglected area in the Czech Republic and the potential interest of seniors is insufficiently appreciated.

Even though those unwilling to pursue further training strongly prevail among older employees, the age limit seen by those employees as a threshold by which one can learn new things was perceived to be fairly high. Only 8 % of older employees were convinced that 50 years is too old to acquire new knowledge and skills. 21 % moved this threshold to the age of 70+. None

the less, the most frequently given age category was the age group to which the respondents themselves belong, the age group of 50-59 (39 %) and the age group of 60-69 (32 %).

8.7. Implications

Maximising the potential of the strongest motivators, several general directions aimed at prolonging working life may be considered in the Czech Republic:

(a) supporting lifelong learning and educating older people:
it is vital that seniors be involved in education and training to complement and maintain sufficient expertise. Further, lifelong learning becoming a natural part of everyday life of an individual in society would prevent a range of problems at old age. Continuing education and training not only maintains the ability to learn, but also leads to valuing learning and training as prerequisites for quality job placements.
A solution would be to accept a general 'lifelong learning culture' (Czesaná et al., 2006) in which it will be unacceptable to consider graduation as completion of education and in which every individual will have the ability to complement his/her knowledge and expand his/her skills throughout the career. This requires the development of a high-quality further education and training system which considers the special needs of older people and which includes comprehensive information that is easily accessible.
It would be desirable to develop innovative learning and training offers specifically designed for older people with regard to teaching methods, speed of teaching, contents, entry requirements, etc. In the Czech Republic, adult education provided by schools is seen as fully unsatisfactory for older workers, since its very nature is focused on younger age groups. Older people for example often prefer to study in a peer group, where not even the teacher or trainer is significantly younger than they are. Learning programmes for older workers should intensify study requirements only gradually, include repetition of curriculum from lower levels and use teaching methods tailored to the needs of older individuals. Interconnection between training and practical application of newly acquired skills in real work environments is also vital. Finally, teaching should take a long-term perspective, so that older course attendees have sufficient time to process adequately new information and skills;

(b) financial benefits of employing older people:
on the one hand it is possible to financially motivate employers, such as reducing their deductions for employees in pre-retirement and retirement age, providing subsidies for employing unemployed seniors and subsidies to educate seniors. However, making it possible for people in pre-retirement age to have shortened working hours without any impact on the amount of their future pension and taking into account work beyond the retirement age for the purpose of calculating future pensions also serve as efficient measures;

(c) supporting flexible working forms:
this entails allowing for better combinations of working life and 'relaxing' life, which would make it possible to gain satisfaction from personal life and would partly retain seniors as a valuable part of the workforce. Flexible or reduced working hours may also be a solution for people physically exhausted from work or suffering from health problems. This may be supported by shielding older workers from adverse working conditions;

(d) changing the negative attitude towards older people:
considering the research results, the need to change a negative attitude of both employers and society towards seniors is also clearly highlighted. Since this involves a change of thinking, this aim is difficult to achieve with the help of top-down measures, but would require a comprehensive approach at multiple levels. In any case, this cannot be achieved overnight.

8.8. Summary

The outcomes of the field surveys that form the basis of this chapter indicate that a small number of factors influence the decision whether or not to work in old age. The conclusions are supported by similar findings from various analysed groups including expert analyses from labour office employees.

In the Czech Republic monetary aspects are the key reason to remain employed, since retirement involves a reduction in income. Differences in income for individuals with different educational attainment levels make this factor the strongest for individuals with higher education levels. Without financial pressure, few people would spontaneously choose to stay in employment at old age. In contrast, the main reason for leaving working life is health and a general reduction of someone's physical condition. These

reasons tend to be more important for those with lower educational attainment and increase in importance for individuals with manual jobs.

People with higher education levels retire early only in exceptional cases and on serious grounds, mainly due to health problems. Factors that support staying employed at old age interplay in complex ways but also depend on educational background. People with higher educational attainment want to continue to find self-fulfilment in their field of work, stay in active life, and apply lifelong experience and satisfaction in their present job. Therefore, education can be seen as a key factor affecting the attitudes and motivations of older people which to a great extent determines the type (level) of job they perform and their willingness to work longer.

The situation of older people in the labour market is complex and it is not easy to draw straightforward conclusions. The findings present the challenges from various perspectives and provide partial answers that may serve as a guideline for further research. Nevertheless, several general directions for further policy developments can be outlined: comprehensive support of lifelong learning while keeping an eye on the specifics of older learners, introducing financial incentives for workers and employers, support of using flexible working schemes, and support for an attitude change in society.

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9. How does the option to defer pension payments affect the labour supply of older workers in Denmark?

Anna Amilon and Torben Heien Nielsen

ABSTRACT

This chapter investigates the effects of a recent Danish policy reform on the number of hours worked after age 65. In short, the policy reform involved the option to defer pension payments and a reduction in the official retirement age from 67 to 65. Using a quasi-experimental design, we find that the reform has had a small positive impact on the number of hours worked at age 65. In the longer term (from age 65 to 67) the effect disappears, probably due to the reduction in the official retirement age causing people to retire earlier. It is mainly men, the highly educated and people holding advanced positions that choose to defer their pensions. The results, therefore, indicate that the reform has mainly improved the situation of an already well-off group.

9.1. Introduction

Older workers offer tremendous potential value to businesses, the economy and society. However, various policies and practices often pose serious barriers to their active labour-market participation. In recent years, many countries have reformed their pension and retirement systems to create incentives for older workers to continue to work for as long as possible, to relieve the stress on public expenses caused by population ageing and to take advantage of older workers' skills and experience. This study investigates the effects of a Danish policy that gave workers the right to defer their pension payments. The purpose of the policy was to create incentives for workers having reached retirement age to postpone retirement and increase their hours of work after the normal retirement age.

The proportion of the population aged 65 and over to the working-age population is expected to rise from 24 % in 2004 to 40 % in 2035, and age-related public spending accounts for almost 30 % of GDP in Denmark (OECD,

2005a). In addition, expected longevity has increased substantially over the past 30 years, and was 96.6 years for women and 87.9 years for men in 2008 (ATP, 2008) ([1]). Therefore, it might seem surprising that Denmark lowered its official retirement age from 67 to 65 years in 2004. The reduction in the official retirement age reflects the need to reduce the costs of the voluntary early retirement pension (VERP), which allows its participants to retire at age 60. The VERP was introduced in 1978 to reduce unemployment levels (Lykketoft, 2006). At the time of introduction, 35 000 people were expected to choose VERP, but in 2006 approximately 200 000 people were benefiting from the policy. In fact, among the 1937-41 cohorts, 54 % were on VERP the year before they reached the official retirement age, and another 23 % were on social disability pension. Due to the high popularity of the VERP, it has proven politically difficult to abolish it. Nevertheless, VERP was reformed in 1999, making it disadvantageous to retire before the age of 62, to reduce the costs of the policy, and to prevent the drain of qualified manpower from the workforce. In addition, it was decided that the retirement age should be lowered from 67 to 65 years to reduce further the costs of VERP ([2]). To offset the effect of lowering the expected retirement age, the opportunity to defer pension payments was introduced.

9.2. The Danish public pension system

The pension system consists of three pillars: a public pension (*folkepension*); labour-market pensions; and private pensions. Here, we will only describe the details of the public pension. More information about labour-market and private pensions can be found in Sørensen (2006) and others.

The purpose of the public pension is to provide efficient poverty protection in old age. The pension is funded by taxes on a 'pay as you go' basis. To receive a full public pension, the individual should have resided in Denmark for at least 40 years between the age of 15 and the age of 60. The public pension consists of two parts: a basic pension and a pension supplement. The pension supplement is income tested against all sorts of income, whereas the basic pension is only tested against wages (i.e. earnings tested). The pension supplement is reduced by 30 % for yearly incomes over DKK 57 300 and DKK 115 000 for singles and married individuals respectively (for married individuals, both spouses' incomes are included). The basic pension

([1]) For 60 year-old men and women.
([2]) The full VERP is approximately DKK 20 000 higher a year than the full public pension and, therefore, the total costs of pensions were expected to decrease through this reform.

is reduced by 30 % for yearly earnings above DKK 259 700. Consequently, those with earnings above DKK 463 500 get no public pension at all.

9.2.1. The pension deferral reform

Before the 2004 reform of the pension system, the official retirement age was 67 and there was no option to defer pension payments. Consequently, those who wished to continue working after the official retirement age received their pensions 'taxed' back by 30 % for incomes above certain levels (as described in the previous section). As Danish income taxes are among the world's highest, this additional tax on pensions made it unattractive to continue working after age 67.

The retirement age was lowered from 67 to 65 on 1 July 2004. However, only those born on or after 1 July 1939, who turned 65 on the day the new retirement age was introduced or later, were affected. Simultaneous with lowering retirement age, a pension deferral policy was introduced to encourage 65 year-olds to continuing working. Everyone reaching retirement age from 1 July 2004 and onwards could choose to defer their pensions, including those who had already retired.

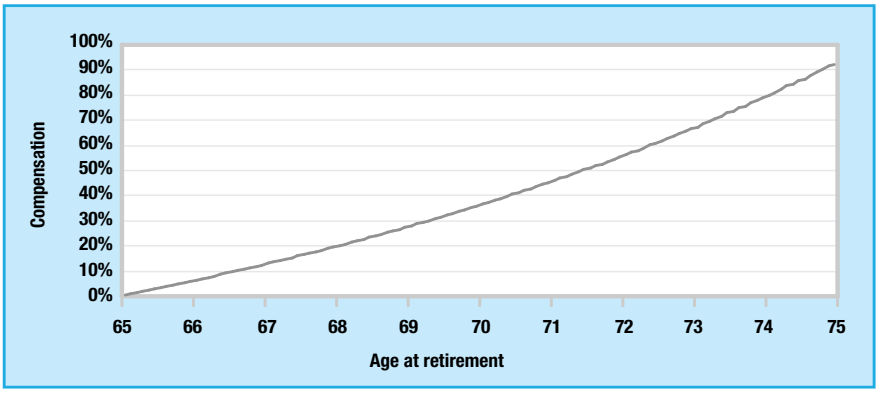
The deferral policy gives workers that have reached the official retirement age, and who wish to continue working, the right to postpone public pension payments, so reducing their effective marginal tax rate. In addition, for each year the pension is deferred, the worker's future pension payments are increased by a factor determined by the ratio between the (gender neutral) expected longevity at the age of retirement (in months) and the total number of months of deferral. Figure 9:1 shows how the percentage compensation for deferral increases as the age of retirement increases. In total, the pension can be deferred for a maximum of 10 years (until age 75), and the compensation for such a long deferral period is almost 100 %.

However, workers have to be active at least 1 500 hours a year during the deferral period to qualify for the increase in their future pension. This work-requirement approximately corresponds to the average number of hours worked per year for the average individual (OECD, 2005b), and might, therefore, discourage older people from deferring their pensions. This issue was addressed by reducing the work requirement to 1 000 hours a year on 1 July 2008.

Older workers who decided to continue working after age 65 can choose between deferring their public pension (optionally including compensation) and immediate pension payments. Several factors determine whether deferring one's pension is beneficial or not. First, individual income and

earnings have a large influence. If the yearly income is below DKK 57 300 for singles and DKK 115 000 for married individuals there is no need to defer the public pension, as the income is too low for the pension to be influenced by the income/earnings test anyway. However, if yearly earnings are above DKK 463 500, the cost of deferral is zero, as the person would not receive public pension anyway. Therefore, it can be expected that persons with higher incomes are more likely to defer pensions. Second, life expectancy is of vital importance in the choice of deferral, since the compensation is based on future pensions being increased by a certain percentage. A person who expects to live for only a few years after the official retirement age, therefore, has little to gain from deferring pensions, as no compensation is paid to surviving relatives, while a person expecting to live for many years has more to gain from deferring pensions. However, estimating remaining lifespan may be difficult.

Figure 9:1 **The compensation for deferral, as a function of age at retirement**



Source: Own calculations based on the rules of deferred pension, and expected longevity, 2007

9.2.2. Pension deferral in other countries

One well-known pension policy similar to the Danish deferral policy is the social security earnings test in the US (Disney and Smith, 2002). In this, pension benefits are reduced if earnings exceed certain thresholds. This reduction is then compensated by increasing future benefits so that the individual is compensated over lifetime for the reduction while working. In the Danish system, workers having reached retirement age can choose either to receive their current pension reduced (without compensation) or defer their pension (and receive compensation). Thus, both the US and the Danish

system involve earnings tests and (the possibility of) future compensation for workers that continue working after the official retirement age. There have been several studies on how the social security earnings test affects the labour supply of older workers; although results vary between studies, they usually find that labour supply increases when the earnings test is reduced or abolished (Friedberg, 2000; Gruber and Orszag, 2003; Song and Manchester, 2007; Haider and Loughran, 2008).

Baker and Benjamin (1999) analyse the effects removing a national earnings test for workers continuing work after retirement in Canada. They find that the reform was associated with a relatively large increase in weeks worked, conditional on employment. However, the Canadian reform involved a reduction in the marginal tax of working without the option to defer pension payments against a future compensation, and is thus somewhat different from the Danish pension reform. Nevertheless, the Canadian reform shows the importance of financial incentives to the labour supply of older workers.

In the past, the UK had a system similar to the Danish one, including an earnings test, the option to defer pensions and compensation for those who chose to do so. However, the earnings test was abolished in 1989 which led to an increase in working hours of older male workers of approximately four hours a week (Disney and Smith, 2002).

The analysis of the Danish reform adds to the previous literature by investigating the effects of an introduction of the option to defer pensions, which, it appears, has not been investigated before.

9.3. Data and descriptive statistics

This study uses register data from 2003-06 on a 30 % sample of residents born in 1939-41 from Statistics Denmark. This data set includes 79 190 persons. The register data were linked to a data set (also from Statistics Denmark) comprising all individuals that chose to defer their pensions during 2004-06. In total, 5 696 persons born in 1937-41 had deferred their pensions at some point during 2004-06 ([3]).

In this section, we show descriptive statistics of the individuals who chose to defer their pensions, and of a 30 % sample of the Danish population. The aim is to investigate whether people choosing to defer their pensions differ in socio-

([3]) Also those born before 1937 could defer their pensions in the period under study, although only those born after 1937 were explicitly informed about the opportunity to defer pensions by their municipalities. Only 402 persons born before 1937 deferred their pensions.

economic characteristics from other people in their age group. All information is taken from the year before someone reached the official retirement age (from 2003 for those born in 1939, from 2004 for those born in 1940, etc.).

Of the Danish population, 77 % were either on VERP or had already retired in the year before they reached official retirement age. Therefore, we also show descriptive statistics of those who were still employed the year before they reached retirement age (a total of 15 896 persons). Our reason for doing so is that it is likely that the option to defer pensions would have influenced this group the most. Below, we refer to this group as '30 % sample – employed'. Table 9:1 presents the results.

Table 9:1 **A comparison of characteristics of the population, the employed and those who choose to defer their pensions ([a])**

		30 % sample	30 % sample–employed	Deferred pension
Gender	Female	51.2	36.9	19.5
Civil status ([b])	Married	70.0	75.5	78.7
	Divorced	14.1	11.8	12.0
	Widow/widower	10.5	8.0	5.1
	Never married	5.5	4.7	4.3
Country of origin	Denmark ([c])	95.3	94.2	95.1
	Developed countries ([d])	3.4	4.3	4.2
	Developing countries ([e])	1.4	1.5	0.7
Level of education	Compulsory	44.7	31.5	13.8
	Secondary	37.4	34.9	30.0
	Short university	3.3	4.7	4.6
	Medium university	10.8	17.3	20.1
	Long university	3.8	11.7	31.5
Socioeconomic status	Self employed	5.0	21.9	20.3
	Top leader	0.7	3.1	9.6
	Employed	12.6	51.1	68.5
	Unemployed	0.6	2.6	0.3
	Early retirement	22.8	–	0.1
	VERP	54.0	–	0.4
	Others	4.3	21.3	0.9
Income	1st quartile	148 563	201 249	408 869
	Median	184 614	315 429	539 443
	3rd quartile	260 422	452 488	765 201
Observations		79 190	15 896	5 696

([a]) The number of observations in the last row of the table refers to the total number of observations in each group. However, since there is missing information for some of the variables, the percentages displayed in the table are usually based on a slightly smaller number of observations. The number of missing observations for each variable is available from the authors on request.
([b]) All categories include registered partners.
([c]) Includes the Faeroe Islands and Greenland.
([d]) Includes all European countries (except Cyprus and Turkey), Australia, Japan, New Zealand, and North America.
([e]) All other countries.

Source: Own calculations on Danish register data.

It is evident from Table 9:1 that males are overrepresented among those choosing to defer their pensions, as are married individuals. Immigrants from developing countries are substantially less likely to defer their pensions, possibly because they are less likely to be entitled to a public pension. On average, those deferring their pensions have higher education levels and are more likely to be employed the year before they were entitled to a public pension, compared to the 30 % population sample. Also, those choosing to defer their pensions have much higher incomes the year before retirement age than the other two groups. In addition to income data, we also have data on earnings in the year before retirement age (not shown in Table 9:1). Our earnings data show that among those that deferred their pensions, 31.2 % had earnings above the ceiling for being allowed to receive public pension. Although this figure reflects the situation the year before retirement age was reached, it indicates that around 30 % of those choosing to defer their pensions would have received no public pension if they had chosen not to defer. Thus, there is no cost of deferring for approximately 30 % of those doing so.

9.4. Method

Two methods are used to assess the effects on labour supply of the Danish 2004 pension deferral reform, in which retirement age was lowered and the opportunity to defer pension payments was introduced. First, we use a quasi-experimental design in which the labour supply of a group of workers who were affected by the policy change is compared to a group of workers who were not. Second, we analyse survey data to evaluate what influenced the decision to defer pension payments and continue working after having reached official retirement age.

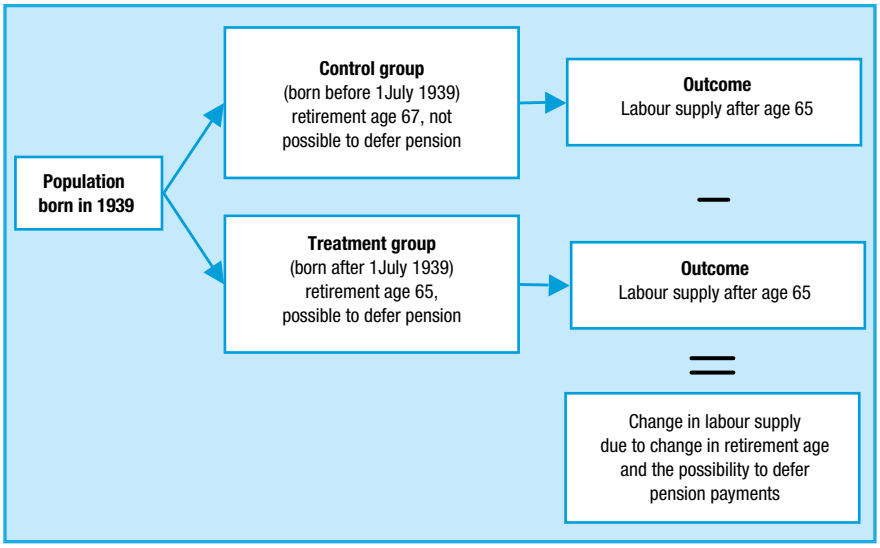
9.4.1. Quasi-experimental design

To identify the effects of the policy change, we compare people born on 1 July 1939 or later (who could retire at age 65 and who had the opportunity to defer pension payments) to people born before that date (who could retire at age 67 and who could not defer pension payments until that age). By comparing the labour supply after age 65 for these two groups, we can evaluate the effects of the Danish reform (Figure 9:2). This part of the analysis is based on the Danish register data described in Section 9.3.

It might be expected that people whose retirement age is 67 will work more than those whose retirement age is 65, regardless of the latter group

having the option of deferring pension payments. However, this is by no means certain, since early retirement is popular in Denmark, and since approximately 77 % of residents born in 1937-41 were on either VERP or on social disability pension the year before they reached the official retirement age. The pension deferral reform is likely to influence mainly those workers who do not choose VERP or social disability pension. It is, therefore, possible that the combination of lowering the retirement age and the opportunity to defer pension payments might have an aggregated positive effect on number of hours worked after age 65.

Figure 9:2 **Comparison of the labour supply of people born before and after 1 July 1939**



Source: Authors

9.4.2. Survey data analysis

To investigate further what drives older people to continuing working after retirement age we use survey data collected by the Danish national centre for social research on behalf of the ministry of welfare in the summer of 2008. All those interviewed were born in 1939-41 and the response rate was almost 75 %. The final data set includes 701 persons who have chosen to defer their pension payments and 689 persons who had the opportunity to defer, but who chose not to do so. Information about the reasons for deferral, the effects

of the work-requirement of 1 500 hours and perceptions of the 'fairness' of the deferral policy were collected. The survey data assists understanding of why people choose to continue to work after the official retirement age: the mechanisms that prevent older people from working can also be identified.

9.5. Results

The analysis showed that those who choose to defer their pension payments are mostly male and highly qualified professionals. We now examine whether the deferral policy has an effect on labour supply, using the quasi-experimental design outlined in the previous section. Then we shed further light on the results with descriptive statistics from a survey conducted in 2008 on those who chose to defer their pensions and those who chose not to do so. More detailed information can be found in Amilon et al. (2008).

9.5.1. **Results from the quasi-experimental design**

We use OLS-regressions to investigate the effect of the deferral policy. Two models are estimated. In the first model, a dummy variable indicating whether deferral was possible is included as an explanatory variable. In the second model, we include other explanatory variables such as gender, education and social status. We use data on people born in June and July of 1939, with those born in June lacking the option to defer their pensions. Our reason for limiting the sample to only those born in June and July is to avoid any systematic differences in (observed and unobserved) characteristics of those that could, and those who could not, defer their public pension. We believe the risk of there being systematic differences between those born in June and July to be small. If there are no differences between those born in June and those born in July other than the deferral reform influencing the latter group, all differences in labour supply between the two groups must be due to the reform. If there are no systematic differences between those who could and those who could not defer their pensions, including explanatory variables in the models should have no effect on the variable indicating the possibility to defer.

The dependent variable is the number of hours worked (at age 65 in Table 9:2 and at age 65-67 in Table 9:3). The measure includes only normal working hours for the employed and, therefore, no adjustment is made for overtime, sickness leave, etc., or self-employed individuals ([4]). The analysis of the number of hours worked at age 65 gives the short-term effect of the

deferral policy, whereas the analysis of the number of hours worked at age 65-67 gives the effect of the policy in the longer term. It was not possible to analyse the effects of the policy after age 67 due to data limitations.

Table 9:2 shows the effect of the possibility to defer pensions and the reduction in official retirement age from 67 to 65, on the labour supply at age 65, in 2004.

Table 9:2 **Effect of the pension deferral reform on labour supply at age 65**

Variable		Coefficient (standard error)
Model 1	Deferral	25.11 (14.30) *
	Constant	89.71 (10.19) ***
	Number of observations	2 579
Model 2	Deferral	20.47 (13.86)
	Male	54.51 (14.18) ***
	Compulsory	-94.62 (38.98) **
	Secondary	-39.03 (39.09)
	Short university	Reference
	Medium university	23.82 (42.77)
	Long university	377.46 (52.56) ***
	Married	Reference
	Divorced	15.17 (22.77)
	Widow/widower	34.65 (19.95) *
	Constant	205.33 (42.54) ***
	Number of observations	2 515

* significant on 10 % level;
** significant on 5 % level;
*** significant on 1 % level.
Source: Authors.

In Model 1, which includes no explanatory variables, the coefficient of the variable 'deferral' is equal to 25.11 and is significant on the 10 % level. This means that workers born in July 1939 worked on average 25.11 hours more in 2004 than workers born in June 1939. Given that there are no systematic differences between workers born in June and July 1939, the higher labour supply of workers born in July must be due to the deferral reform. It might seem surprising that workers able to retire at age 65 work more than those who could first retire at age 67, despite the former having the option of deferring their pension. However, approximately 75 % of workers were already retired at age 64. Thus, those continuing to work until age 65 are most likely workers

(4) Self employed individuals have been excluded from the analysis.

with a strong commitment to the labour market. Therefore, the deferral reform had a positive, albeit small, effect on the average labour supply at age 65.

The coefficient on the deferral variable is reduced by 4.5 hours a year when explanatory variables are added to the model (Model 2). Also, the coefficient is no longer statistically significant on the 10 % level. This result indicates that there might have been some differences in characteristics between workers born in June and July, and these differences have slightly influenced the results. However, we still find a positive effect of the Danish pension reform on the labour supply at age 65. The coefficients of the explanatory variables show that males tend to work approximately 55 hours a year more the year they turn 65 than women. The higher the educational level, the higher the labour supply and the effect of a long university education is substantial: those with a long university education work, on average, 377 hours more the year they turn 65 than those with a short university education. Finally, married individuals work a little less than divorced or widowed individuals, perhaps due to complementarity of leisure for married individuals, since many are likely to have a retired spouse.

In Table 9:3, we show results corresponding to Table 9:2, but in this case the dependent variable consists of all hours worked from 2004-06, that is from age 65 to age 67. Although the deferral variable is still positive, it is far from being statistically significant, showing that the deferral reform combined with the option to retire two years earlier, has no effect on total labour supply over a two-year period. One interpretation of the results found in Table 9:2 and 9:3 is, therefore, that workers having the opportunity to defer their pensions work slightly more than they otherwise would have done after having reached retirement age. In the longer term, however, more and more individuals take the opportunity of early retirement and thus, the positive effect found in the first year disappears.

As in Table 9:2, the coefficient of the deferral variable is reduced in magnitude when explanatory variables are added, but this reduction is more substantial in Table 9:3. One reason is that the systematic differences between workers born in June and July become more pronounced as the workers age. Still, we find it difficult to believe that a maximum age difference of two months should have any large effects even at age 67.

Apart from the deferral variables, the effects of gender, education and civil status are similar to the ones found in Table 9:2. The estimated coefficients are approximately three times larger in Table 9:3, which could be expected as they show the effects of the corresponding variables on labour supply in three years (2004, 2005 and 2006), whereas the effect is only for one year (2004) in Table 9:2.

From the quasi-experimental design we conclude that the Danish reform had a positive effect on labour supply at age 65, and that workers who could defer their pensions worked on average approximately 20 hours more than workers who could not defer. This effect disappears in the longer term, so that there are no differences in labour supply from age 65-67 between workers who could, and who could not, defer.

Table 9:3 **Effect of the pension deferral reform on labour supply at age 65-67**

Variable		Coefficient (standard error)
Model 1	Deferral	36.85 (33.52)
	Constant	206.04 (23.89) ***
	Number of observations	2 544
Model 2	Deferral	22.80 (32.52)
	Male	140.52 (33.26) ***
	Compulsory	-183.52 (91.87) **
	Secondary	-60.76 (92.13)
	Short university	Reference
	Medium university	31.59 (100.84)
	Long university	983.29 (125.02) ***
	Married	Reference
	Divorced	40.64 (53.56)
	Widow/widower	68.73 (46.71)
	Constant	479.59 (100.40) ***
	Number of observations	2 480

* significant on 10 % level;
** significant on 5 % level;
*** significant on 1 % level.
Source: Authors.

9.5.2. Survey data analysis

To learn more about what stimulates people to continue working after age 65, or why people choose not to work after this age, we analyse the survey data. Among those who had never deferred their pensions, only people who were still employed at age 64 (the year before the official retirement age) were interviewed, to avoid people having retired early, and people on VERP participating in the interview. In what follows, we will occasionally divide the respondents into four groups:

(a) deferred–retired (361 persons): people who previously deferred their pensions, but who currently (at the time of interview) are receiving pensions. These people might still be employed despite their pensions no longer being deferred;

(b) deferred–employed (340 persons): people who still defer their pensions and who were still employed at the time of the interview;
(c) not deferred–retired (364 persons): people who retired at the public retirement age, and who never worked after retirement;
(d) not deferred–employed (325 persons): people who have not deferred their pension at any time, but who have worked after the public retirement age. These people might have retired at the time of interview.

Descriptive statistics show that the persons interviewed do not differ significantly from other people in their age group. The interviewed sample is representative both of people choosing to defer and choosing not to defer ([5]).

9.5.2.1. *Reasons for and against deferring*

The persons who had deferred their pension at any point in time (groups (a) and (b)) were asked if the opportunity to defer their pension had a decisive influence on their decision to continue working after age 65. For 97 %, this was not the case, indicating that the option to defer one's pension is not in itself enough motivation to continue working after age 65. The respondents who had deferred were asked why they had chosen to do so. Their responses are given in Table 9:4.

It is evident from Table 9:4, that the most important reason for deferring the pension among our respondents is that the individual enjoys his or her

Table 9:4 **Reasons for deferring in %**

Reason for deferral	Most important	Second most important	Mentioned as important ([a])
Enjoyed working	43	19	62
Wanted to retain earnings from work	15	14	29
Wanted to increase future public pension payments	11	13	24
Wanted to continue private pension savings	2	4	6
Wanted to avoid the high 'tax' connected to working and receiving a public pension simultaneously	18	9	27
Wanted to avoid the high 'tax' connected to receiving other pensions simultaneously	2	2	4
Spouse was still employed	2	4	6
Other	6	5	11
No other reason than the most important reason	-	27	27

([a]) Mentioned as important is the sum of the most important and the second most important reason and, therefore, the numbers in this column add up to 200 %.

Source: Own calculations on survey data.

([5]) Results showing that the interviewed sample is representative can be obtained from the authors on request.

job. Other important reasons include that respondents want to retain their earnings, or that they want to avoid the high total marginal tax caused by the public pension being reduced if working income exceeds certain amounts (Section 9.2.1).

Table 9:5 shows why respondents who did not defer their pensions chose not to do so.

Table 9:5 **Reasons for not deferring in %**

Reason for deferral	Most important	Second most important	Mentioned as important (a)
Enjoy life as retired	22	16	38
Wanted more leisure time	6	18	24
Uninspiring job	1	2	3
Economic compensation of deferral was too low	9	1	10
The work requirement was too high	4	5	9
Not possible due to conditions at the workplace	9	2	11
Did not want to, due to conditions at the workplace	3	4	7
Did not know that deferral was possible	13	3	16
Bad health	6	3	9
Spouse had retired	4	4	8
Other	21	6	27
No other reason than the most important reason	-	31	31

(a) Mentioned as important is the sum of the most important and the second most important reason and, therefore, the numbers in this column add up to 200 %.

Source: Own calculations on survey data.

The most common reason for not deferring one's pension is that respondents want to enjoy life when retired. However, 16 % of the respondents claim that they did not know that deferral was possible. As all people retiring after 1 July 2004 (all respondents) are informed about the deferral policy by their municipalities, to have so many respondents claiming no knowledge of the policy suggests that information about deferral is insufficient. Almost one fifth of the respondents mentioned a reason other than the ones listed as the most important one for not choosing to defer. Among these other reasons, the most common one is 'having to take care of a sick spouse' and 'the municipality advising against deferral'.

9.5.2.2. *Employment*

We now investigate the number of hours worked on average per week for those that deferred their pensions, and for those who did not defer, but who continued to work after age 65 anyway. The group 'not deferred–employed'

(group (c)) is left out of this analysis, as the respondents in this group did not work after having reached the official retirement age. To receive compensation for deferral, one has to work at least 1 500 hours a year, which corresponds to approximately 30 hours a week. Table 9:6 presents the number of hours worked on average per week after the persons turned 65 and were entitled to a public pension.

Table 9:6 **Average number of weekly hours worked immediately after age 65**

	Deferred – retired	Deferred – employed	Not deferred – employed
Hours worked/week	37.25	39.49	28.96
Number of observations	357	335	312

Source: Own calculations on survey data.

Those that deferred their pensions worked significantly more than those who did not defer. For those who deferred, the number of weekly hours is significantly larger than the 30 hours stipulated in the work requirement. Nevertheless, for those who did not defer, (the group 'not deferred–employed') the average number of hours worked is not significantly different from 30 on the 95 % level. In addition, 64 % of the respondents in this group worked 30 hours or more after having reached retirement age. Thus, most of those that did not defer their pensions could have done so.

The level of employment immediately following public retirement age might say little of the number of hours that the worker wishes to work in the long term, as this period might be a transfer period from full employment to part time employment or complete withdrawal from the labour market. Therefore, we asked the respondents how much they worked on average during the entire period that they were employed after having reached the official retirement age. Those in the group 'not deferred–employed' were divided into two groups, those who were still employed at the time of the interview and those that had retired at the time of the interview. Table 9:7 gives the results.

When comparing Table 9:6 to Table 9:7 it is clear that those who deferred their pensions continued to work significantly more than the 30 hours a week stipulated in the work requirement up until they retired (for the group 'deferred–retired') or until today (the group 'deferred–employed'). Thus, the work requirement does not seem to have influenced labour supply substantially for this group. Those in the group 'not deferred–employed' who were still employed at the time of the

interview, did not work enough to fulfil the 'old' work requirement of 30 hours a week. However, with the new work-requirement of only 20 hours a week, most of these workers could choose to defer their pensions if they wanted to. Those who had retired at the time of the interview worked on average 28.71 hours a week after they turned 65, which is not significantly different from 30 hours on the 95 % level, hence a substantial number of these workers could have chosen to defer their pensions.

Table 9:7 **Average number of weekly hours worked from age 65 until the time of the interview or until withdrawal from the labour market**

	Deferred – retired	Deferred – employed	Not deferred – employed	
			Still employed	Retired
Hours worked/week	37.17	39.00	26.44	28.71
Number of observations	356	330	209	97

Source: Own calculations on survey data.

9.5.2.3. *Preferred compensation for deferral*

The compensation for deferring one's pension is likely to influence for how long the pension is deferred. We asked the respondents how high they thought that the compensation for deferring one's pension for one, five or 10 years should be. To make sure that the respondents did not answer the question with reference to their own specific situation, we first informed them that a single individual who has no other income but public pension receives DKK 10 500 a month. Thereafter, we asked the respondent how high they thought that the compensation for such an individual should be, if he or she deferred the pension for one, five and 10 years. The results are shown in Table 9:8. The answers are divided into the four groups defined above, and the column 'actual compensation' gives the compensation that the individual in our example would have received according to the law.

Table 9:8 **Preferred and actual compensation for deferral, in Danish kroner**

Years deferred	Deferred – retired	Deferred – employed	Not deferred – retired	Not deferred – employed	Actual compensation
10 years	9 383	9 659	8 318	9 337	9 486
5 years	6 115	6 030	5 516	6 621	3 672
1 year	2 438	2 698	2 470	2 747	612

Source: Own calculations on survey data. The figures in the column 'actual compensation' are own calculations based on the rules of deferred pension and life expectancy for 2007.

As expected, those in the group 'not deferred–retired', who stopped working after public retirement age, think that the compensation should be lower than those who have continued working. Those in the group 'not deferred–employed', in general think that compensation should be highest. This result might reflect that these workers chose not to defer partly because they think that the compensation is too low. For the longest deferral period, 10 years (which is also the maximum deferral period according to the law), there are no significant differences (on the 95 % level) between actual compensation and how high the respondents in the four groups think that the compensation should be ([6]). For the shorter deferral periods (one and five years) the actual compensation is considerably lower than the respondents' preferred compensation and the shorter the deferral period the larger the difference between the actual and the preferred compensation. One possible interpretation of the results is that the compensation should be increased for shorter deferral periods. However, it cannot be excluded that the large discrepancies between the preferred and the actual compensation are partly due to the example given in the question, in which a single individual with no other income than public pension was used. As it is rather common in Denmark that pensioners also have other sources of income (such as labour market or private pensions), it might be the case that the preferred compensations would have been lower if we had used a person with other sources of income (with less need for extra compensation) in our example instead.

9.5.2.4. *Health and life expectancy*

The longer a person lives, the greater the gain from deferring pension. Therefore, we expect those who choose to defer their pensions to be of better health, and to expect a longer life than those who choose not to defer. The respondents were asked how they would characterise their own health in relation to that of other people in the same age. We show the results in Table 9:9.

Those who deferred their pensions have a higher probability of considering themselves to be in good health than those who did not defer. The group 'not deferred–retired' has the greatest probability of considering their own health to be fair or worse, which might also explain why the respondents in this group chose to retire at the public retirement age. The results in Table 9:9 are consistent with the hypothesis that people of good health are more likely to defer their pensions.

([6]) Confidence intervals for the preferred compensations can be obtained from the authors on request.

Table 9:9 **Self reported health**

	Deferred – retired	Not deferred – retired	Deferred – employed	Not deferred – employed
Very good	67.59	71.74	49.45	54.32
Good	23.82	22.65	32.14	38.89
Fair	5.26	5.29	12.36	5.86
Poor	1.94	0.29	4.95	0.62
Very poor	0.83	0.00	0.82	0.31
Do not know	0.55	0.29	0.27	0.00
Number of observations	361	340	364	324

Source: Own calculations on survey data.

Table 9:10 shows life expectancy in years for the respondents in the four groups. Contrary to what was expected, those in the group 'not deferred–employed', are the most likely to expect to reach the age of 90 or above, although the difference between this group and those that have deferred their pensions (the groups 'deferred–retired' and 'deferred–employed') is small. Also when comparing the expected probability of becoming older than 85, those in the group 'not deferred–employed' report the highest numbers. The results are surprising: those that deferred their pensions reported better health than the other groups, but do not expect to live longer. Further, people with high life expectancy would be expected to defer their pensions, which is not what we observe. As shown in Table 9:4, enjoying one's job is the main motivation for continuing to work after age 65, and thus, the economic compensation from deferral is probably more of an extra bonus for most individuals that do defer. These factors might explain why life expectancy is not highest among those who defer. As was expected, those who retired at age 65 report the lowest probability of becoming older than 85. These individuals also report a lower level of health (Table 9:9).

Table 9:10 **Life expectancy**

	Deferred – retired	Deferred – employed	Not deferred – retired	Not deferred – employed
65-70	0.56	0.00	0.28	0.31
71-75	1.67	1.77	2.22	1.25
76-80	8.89	6.49	10.00	7.81
81-85	23.61	25.07	28.06	24.06
86-90	26.67	25.37	22.50	24.06
90-	27.22	28.61	23.33	30.00
Do not know	11.39	12.68	13.61	12.50
Number of observations	360	339	360	320

Source: Own calculations on survey data.

In summary, the survey data show that preferences for working and for retiring are the most important motivating factors for deferring (or not deferring) pensions. However, 13 % of those not deferring claim that the most important reason for this is lack of information. This result indicates that the information on deferral given to older workers should be improved. Further, the results indicate that the work requirement did not increase labour supply, as the average number of weekly hours worked among those with deferred pensions was approximately 10 hours higher than the number of hours stipulated in the work requirement.

In general, older workers think that the compensation given to deferral should be higher than it currently is, and especially so for shorter deferral periods.

9.6. Conclusion

This chapter investigated whether the option to defer public pension payment, introduced by the Danish government in 2004, has an effect on the labour supply of workers at retirement age. We first showed that persons choosing to defer their pensions are more likely to be male, married, highly educated, in a top leader position and with a substantially higher income than the average: it is mainly people in advantageous positions that choose to defer their pensions.

We thereafter used a quasi-experimental design to investigate the effects of the deferral policy on labour supply. However, as the deferral policy was introduced parallel to the reduction of the retirement age (from 67 to 65), our measure captures a combination of two effects, which cannot be disentangled. We find that the policy had a slight positive effect on the labour supply at age 65 for workers born in 1939. However, in the longer term, from age 65-67, the effect vanishes, so that there are no significant differences between those who deferred their pension and those who did not have this option.

Finally, we analysed survey data to investigate the motivation of those deferring their pension. The majority continue working because they enjoyed doing so. More than 97 % say that the possibility to defer the pension was not decisive in their choice to continue working after the normal retirement age. In addition, the work requirement seems to have had little influence on the number of hours worked, as workers that deferred their pensions worked on average 10 hours more per week than stipulated by the work requirement.

The results from the descriptive statistics, the quasi-experimental design and the survey all point towards the deferral-policy strengthening the situation of the relatively wealthy. In addition, the policy has had little, if any, effect on labour supply. We conclude, therefore, that the deferral reform in Denmark has mainly improved the situation of an already well-off group that wanted to continue working after the official retirement age and, in most cases, would also have done so without the opportunity to defer their pensions.

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10. Perception of age, expectations of retirement and continuing education of older workers

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ABSTRACT

The work capacity and ability of older adults is not only determined by physical and mental conditions, but also by personal convictions on one's abilities at advanced age. A negative perception of age and increasing exclusion impedes occupational engagement. The thought of leaving a job can also cause substantial fears of loss, which can be seen as problematic. In a representative survey of the German population between the ages of 45 and 80, questions addressed the working situation, the personal perception of age, and the views on a later withdrawal from work. The study focused on how the perception of age and the expectation of withdrawal from work differ with regard to occupational groups, gender, general life circumstances and age, as well as how these factors impact on educational behaviour. The results of the study show a clear interdependence between participation in continuing education and personal perception of age. Educationally active ageing adults generally view their age more positively and their participation in continuing education seems to be a significant factor impacting the expectation of one's own retirement. Two types of employee around the end of working life were identified on the basis of a cluster analysis: occupationally-oriented individuals who mainly fear a massive loss when leaving working life and can hardly see alternative fields of engagement; and recreationally-oriented individuals who view withdrawal from the working world as an opportunity to focus on hobbies and other private interests. These groups differ in both educational behaviour and educational interest.

10.1. Participation in education

Various continuing education studies reveal a downward trend in participation after the age of 50. The results of a study on continuing education behaviour of the 19 to 75-year-old population (Barz and Tippelt, 2004) additionally

points to clear differences within the group of older individuals in terms of their educational behaviour. Aside from chronological age, level of education, socioeconomic background and lifestyle and values have been shown to be important determinants of continuing education (Kuwan et al., 2004). A considerable amount of heterogeneity can also be detected within the group of older adults and age effects on participation in continuing education cannot be detected to the same degree in all older adults (Schmidt, 2006). Aside from criteria for vertical differentiation – such as level of education and income – characteristics of horizontal differentiation from lifestyle research continue to come into focus (Tippelt and Panyr, 2004). Accordingly, it becomes necessary to consider different age groups, who turn to educational providers with different interests and who can be supported in their orientation towards life and career through connected comprehensive counselling services.

Age-gaps in participation in continuing education and a decreasing willingness to participate in the last third of the working life are confirmed by research, but the level of education is an important confounding factor. When controlling for educational attainment, a significant correlation between age and participation in continuing education can be found only for those with lower levels of education. For continuing vocational education, however, differences can be found between age groups for all levels of schooling (Kuwan et al., 2004). Cohort effects must be considered as well as age effects (Eckert and Schmidt, 2006). For older workers approaching retirement, suboptimal working conditions and work structures which do not directly support further learning have proven to be relevant barriers for the preservation of older workers' competences (Hübner et al., 2003). None the less, a secondary analysis of Barz and Tippelt's (2004) representative survey shows that an unclear perspective on the future occupational relevance of what has been learned is a particular barrier to participation in continuing vocational education (Schmidt, 2007a). It can be assumed that, for those approaching retirement, limited opportunities for mobility are the main causes of this, but this does not explain completely the decreasing participation in continuing education with increasing age (Kuwan and Thebis, 2005). One could assume that factors such as the self-image of the ageing individuals and missing or unsuitable offers in continuing education – as was proposed in an explorative study in the 1970s (Lehr et al., 1979) – are responsible. The lack of regional networking between education providers, that optimise structures of offers by identifying their local deficits and surpluses, can be a core underlying cause.

Sections 10.2 and 10.3 provide a brief introduction on the meaning of transitions to retirement and the impact of the perception of age on educational processes. Sections 10.4 and 10.5 present the design and the central aims of a research project at the University of Munich (Schmidt, 2007b) ([1]). Empirical results are shown in Section 10.6. The chapter ends with a short conclusion.

10.2. Transition

In the 1960s, transition phases in ageing were described using the 'disengagement-theory'. This conceptualised these phases as a process of societal and social withdrawal and a reduction of relationships and contacts with the outside world, mainly caused by retirement (Cumming, 1963). In the meantime, this theory has been empirically disproven and has been replaced by newer approaches which emphasise the developmental potential in ageing and the phases of transition (Parasuraman et al., 2007).

For instance, there can be important developmental tasks connected to the transition from the working world to the post-occupational phase of life for 50 to 70-year-olds or the so-called 'young old'. The culturally and historically accepted transition from the working world to retirement, and coping with losses of development opportunities, must be dealt with by most older adults, albeit in different ways (Schmidt, 2005). When ageing workers cannot only turn to personal and social resources, but also to an infrastructure tailored to individual needs, coping with these challenges (which sometimes involves a crisis) can support the process of 'successful ageing' (Baltes and Baltes, 1989).

In modern western societies, retirement is universally accepted and mostly irreversible (Schuller, 1997). It concerns a large portion of the population (and increasingly the female population) and returning to a full-time position is currently rarely possible. The status is culturally and historically bound and is tangent to many other areas of life. The transition from an occupation to retirement remains a central status passage and may involve a crisis (Schulz-Nieswandt, 2000) at older age as modern societies do not have adequate transition rituals. Networked social systems of private or public nature become especially important when a transition develops into a crisis which happens when retirement is involuntary and, therefore, experienced as an expulsion

([1]) The study is financed by the German Ministry of Education (BMBF) and is part of a European research project (adult education survey) which ensures the comparability of data.

from the workforce (Schulz-Nieswandt, 2000). However, the transition from active occupational life to retirement does not have to be taken all at once, but can be divided into several phases of transition starting from full-time employment and leading to complete retirement (Knopf, 2000a).

As the transition to retirement can be experienced quite differently depending on situational and regional context factors as well as individual intentions, work-retirement transition management systems should be geared towards different types of retirees (Adis et al., 1996), including:

(a) those who experience their retirement as liberation from an occupation perceived as strenuous;
(b) those who see their retirement sceptically and fearfully;
(c) those who see new possibilities for structuring their lives and a very active retirement (Adis et al., 1996).

The consequences of the transition to retirement may vary according to social contacts and activities, health status and the financial situation of the retiree. A study by Kiefer (1997) focused on the transition to retirement from a pedagogical and psychological perspective and addressed new evaluations of goals and the loss of the occupational role. The extent to which the transition to the post-occupational phase is experienced as strenuous, strongly correlates with the level of education and the family situation and, less so, with gender. Despite the occupational biographies of women which are often characterised by discontinuities, financial discrimination and family responsibilities, the transition to retirement proved to be an equally meaningful event for both men and women. Voluntary decision-making is of great importance for transition management for both sexes (Prager and Schleiter, 2006). Retirement that is forced by job loss or health problems hinders the transition to the post-occupational phase (Clemens, 1997). Because of the challenges and opportunities which accompany retirement, continuing education in the past often focused on preparation for this transition. While the meaning of this preparation for the post-occupational phase is important (Knopf, 2000b), a structure of offers which is only oriented towards these aspects does not do justice to current challenges. Through the cooperation between companies, learning and training institutions and non-commercial organisations (clubs, alliances), improved courses can be developed and introduced, which can open new perspectives by abandoning the complete focus on retirement.

Formalised offers in adult education, autodidactic activities, volunteer activities and activities within formal and informal groups are relevant for learning, particularly for ageing learners. In the transition to the post-occupational phase, volunteer activities in particular can form a bridge between two phases of life

and enable older individuals to experience the same type of self-affirmation as they previously experienced in the occupational context.

10.3. Perception of age

Research – primarily from the Anglo-American tradition – that focuses on the societal perception of age and the spread of age stereotypes has been available since the early 1950s (Tuckman and Lorge, 1953; Featherstone and Hepworth, 1990; Kite et al., 2005). In German-speaking countries, studies on the perception of age first became available in the 1960s. An empirical study investigating the perception of age by Lehr (1964) from the University of Bonn is to be mentioned, as it focused on both positive and negative attitudes towards different ages and concluded that the overall perception of age was rather negative, implying that perception of age in society was guided by a deficit model of ageing.

Recent research includes a study by Kruse and Schmitt (2005) and a French study by Roux et al. (1996). Both studies deal with the perception of age, age stereotypes and relationships between generations. In an earlier study, Roux et al. (1996) conducted a survey of 241 younger (20-24) and 239 older people (65-74) in the cities of Lausanne and Yverdon. The coexistence of a positive and a negative age-related cliché could be established, and the study indicated that a gradual change in the perception of age in modern European industrial societies can be observed. The deficit model is making room for an ambivalent and differentiated model of age and the heterogeneity of ageing and age is equally reflected in the perceptions of age in the population. Shifting perceptions of age and ageing were confirmed in a study by Kruse and Schmitt (2005) which was based on a survey of 1 275 people between the age of 45 and 75. Kruse and Schmitt (2005) showed that individual perceptions of age vary from positive to negative. They also advocated a multidimensional perspective which involves the concurrency of losses and gains in different areas of life. Similar results were obtained earlier in a study by Heckhausen et al. (1989) which involved a survey of 112 people in early, middle and late adulthood.

Differentiating between a general and an individual perception of age is important as the two are not necessarily mutually consistent. According to Lehr and Niederfranke (1991) relevant factors influencing the personal perception of age include gender, level of education, and contact with older adults. Extensive contact with older adults increases the probability of

developing a positive self-concept of age. Aside from these factors, religion, state of health, employment (retirement), living situation and cultural or ethnic background have an impact on the perception of age (Lehr and Niederfranke, 1991; Kruse and Schmitt, 2005).

When examining ageing workers' continuing education and educational interests these influential factors should be considered. The effects of age perceptions, lifestyle, recreational and educational behaviour, plus participation in social and societal life, on educational behaviour have also to be considered. We evaluate these factors using a representative study of behaviour in continuing education and educational interests of older adults. This comprehensive data set permits examination of many of the variables and contexts.

10.4. Aims of the study

The main aim of this multimethod study of behaviour and interests in continuing education of older adults in Germany is to develop outlines and configurations on the demand side of continuing education for older adults. As there are considerable differences between age groups, we distinguish between younger ageing individuals and older ageing individuals. The reason for exploring these two groups separately is that this enables differential analysis according to the circumstances of life in the groups. While educational behaviour of 45 to 65 year olds is primarily influenced by occupational context, other aspects (health, civic engagement, social contacts) become more important after the end of the working phase of life. Our analyses focus on the following two groups:

(a) younger ageing individuals - 45 to 65 years - who are generally available for the labour market and who are increasingly becoming a target group for continuing vocational education (Tippelt, 2005). Key factors impacting participation are course admission requirements, socioeconomic conditions and personal attitudes. Further, private activities in adult education among older workers are also valid for examination since they are relevant for the transition into retirement (Adis et al., 1996). It is important to recognise that individual exit and the arrangement of the transition are not independent from earlier or continuing educational processes (Kiefer, 1997). This correlation is also the central purpose in the analysis of the group. In addition, the retirement process is impacted by informal types of learning for vocational competence;

(b) 66 to 80 year-olds, for which we need a broad definition of adult education as they prefer programmes for health protection, social activities and

civic engagement. The purpose is to gather information about which types of non-formal adult education are used and which barriers inhibit learning in this group, and which learning possibilities and learning places are used by the older adults beyond organised educational programmes. The conditions promoting learning activities at old age and the influence of lifestyle, circumstances, and regional differences on behaviour and interest in adult education represent additional research opportunities.

The central hypothesis of the study is that retirement is not only a meaningful break in the lifespan but leads to changes in educational behaviour and interests directly and indirectly through the change of personal attitudes and sociocultural backgrounds; these largely determine the participation and the interest in adult education, even more than age does. Following this hypothesis, significant differences are anticipated in educational needs and barriers within an age group which have implications at different levels of didactic action.

10.5. Methodology

Previous experience with comparable research projects indicated that a multi-level approach combining quantitative and qualitative methods is an appropriate method for achieving the aims of the study. The first element considered was a series of 13 interviews with experts in gerontology and adult education used to aid the construction of hypotheses and to complement the extensive literature review. A central result of these interviews was the finding on the importance of informal learning in old age (travelling and the relevance of biographical transitions for learning projects).

The second element involved personal interviews with a representative sample of 4 909 adults between 45 and 80 years of age, conducted in 2007 in cooperation with two external research institutes (*TNS Infratest Sozialforschung* and *Helmut Kuwan HK Sozialforschung*) in Munich. The survey is the German part of the adult education survey (AES). The AES has been extended up to the age of 80 and the core inventory of coordinated items for all participating European countries has been supplemented by a national questionnaire containing items on cultural and health education, social activities, experiences with adult education, learning interests, and informal learning. Additional items on attitudes, lifestyle and living conditions have been developed to characterise different groups of older adults. The participants in the stratified random sample were interviewed

face-to-face by trained interviewers. The interviews lasted between 60 and 90 minutes and were supplemented with qualitative data.

The third element in the research involved 15 discussions with different focus groups. These took place between the end of April and the end of October 2007 and were transcribed and analysed afterwards. The group discussions provided more in-depth analysis of selected target groups which were expected to differ in their educational interests and the barriers they encountered. These aspects have been insufficiently documented in other quantitative surveys. The groups consisted of older unemployed, senior students, older adults in rural areas, and older participants in non-academic adult education courses.

The fourth research element involved 60 problem-focused interviews (Witzel, 1985), based on the results of the representative questionnaire and the group discussions. Interviewees were older participants and non-participants in adult education as well as older employees and retirees. The interviews were conducted between December 2007 and March 2008; they were analysed in August 2008. The central aim was to gain in-depth understanding of specific cases to be used for validating the quantitative results and for interpreting the survey data. This requires theoretically fruitful qualitative data as, especially for respondents over 80 years of age, a standardised questionnaire is unlikely to capture all learning needs, problems and challenges. Also, qualitative interviews are crucial to investigating biographical aspects and individual transitions and their relationship to adult education processes.

In this chapter the emphasis will be on analysing the quantitative survey data: these offer a unique opportunity to investigate relationships and interdependencies between groups of items on educational behaviour, the transition from work to retirement and the individual perception of age. Individuals between 45 and 64 years in the sample were selected for the analysis of older workers.

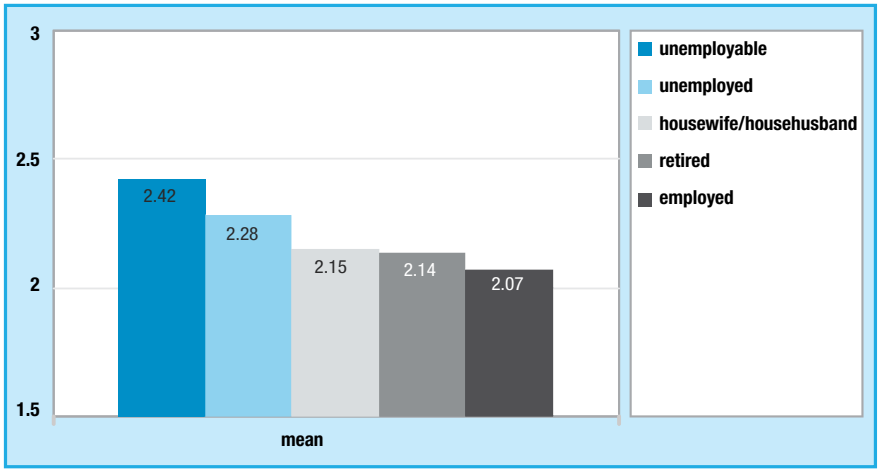
10.6. Findings

The results of the study first show a clear interdependency between participation in continuing education and personal perception of age. Educationally active ageing adults generally view their age more positively and do not solely focus on the developmental losses of the ageing process: they also see developmental gains.

To measure the perception of age, we used 17 items adopted from the German *Alterssurvey* of 2002 (Tesch-Römer et al., 2002) which offered a scale with a high internal consistency (Cronbach's alpha = .845). The scale

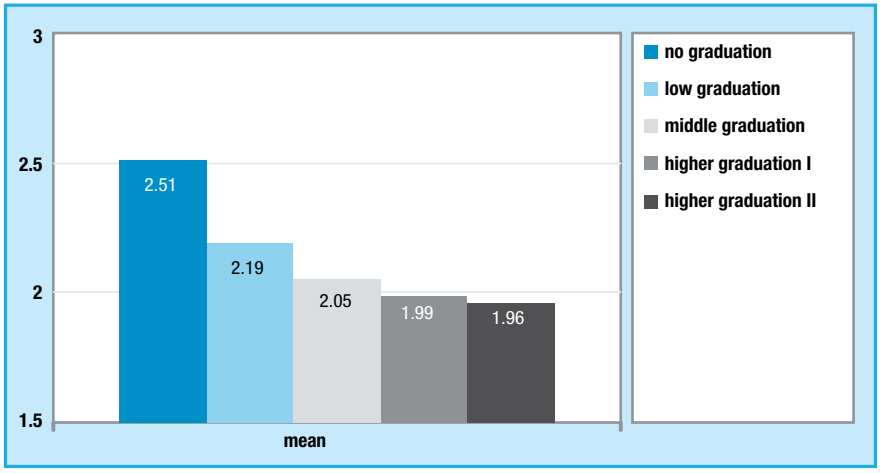
'negative perception of age' has a theoretical minimum of one and a theoretical maximum of four. The maximum corresponds with losses and social isolation linked with the perception of age, which is largely dependent on employment

Figure 10:1 **Negative perception of age and employment status**



Source: Own calculations.

Figure 10:2 **Negative perception of age and level of education**



Source: Own calculations.

status and the individual level of education. The unemployed and those incapable to work, in particular, display significantly higher values in the scale 'negative perception of age' compared to the employed, housewives, and retirees (Figure 10:1). Similar differences were found with respondent education level, with those with no formal degrees having a pronounced negative perception of age (Figure 10:2) while the difference between people with a low level of education and those with middle or high levels of education was also significant.

Although the correlation between participation in education 12 months prior to the interview and the perception of age turned out to be lower than the correlation between the level of schooling and the perception of age, it is still highly significant ($p < .001$). A more detailed assessment of the interaction between the perception of age and the participation in continuing education can be made when considering not only the participation in education in the

Table 10:1 **Participation in continuing education and perception of age**

How often did you participate in adult education up to now?	Mean	Number of observations (n)	Standard deviation (SD)
Never	2.27	1 662	.470
10 times or less	2.13 **	1 808	.444
11 up to 50 times	1.95 **	1 012	.394
More than 50 times	1.88 *	303	.369

* Difference from the previous partial sample is significant ($p < .01$)
** Difference from the previous partial sample is highly significant ($p < .001$)

Source: Own calculations.

previous year, but also general experience in continuing education measured by the frequency of participating in adult education since starting the career. As shown in Table 10:1, the more individuals participated in continuing education activities in the past, the more positive is their perception of age.

In a multivariate regression analysis, the influence of the level of education, continuing education activities and employment status on the scale 'perception of age' can be confirmed. The analysis also considered family status, age,

Table 10:2 **Model of regression analysis for the 'perception of age'**

Model	R	R^2	Corrected R^2	Standard error
All	.339	.115	.111	.43083
Employed	.300	.090	.079	.41472

Source: Own calculations.

gender, and size and location of the company in which the respondents are active. The impact of educational background on the perception of age proved to be less important than the correlation between continuing education behaviour, employment status and the perception of age from an individual perspective. Analogue to the multivariate regression analysis for all ageing individuals we also performed a regression analysis for the employed in which the dependent and independent variables (except the variable 'employment status') were kept the same. Both models are significant although they only explain 11.1 % and 7.9 % of the total variance respectively (Table 10:2).

Comparing these two analyses shows that for the employed, the level of schooling – in contrast to the general sample – has no significant influence on the perception of age, whereas employment status (except the white-collar workers) and experiences in continuing education turn out to have similar effects in both groups. The strong influence of age for the employed

Table 10:3 **Beta-coefficients of the regression analysis for the 'perception of age'**

		All		Employed	
		Standardised beta	Significance	Standardised beta	Significance
(Constant)			.000		.000
Level of schooling	High	.268	.000	-.144	.179
	Middle	.271	.000	-.117	.295
	Low	.263	.000	-.064	.590
More than 500 employees		.006	.710	-.018	.457
Familial status	Widowed	-.116	.606	.020	.897
	Divorced	-.120	.537	.038	.884
	Unmarried	-.084	.568	.059	.757
	Married, living apart	-.038	.620	.024	.807
	Married, living together	-.069	.821	.013	.970
Economic sector	Public services	.003	.975	-.133	.488
	Trade	-.040	.722	-.096	.677
	Artisanry	-.028	.723	-.083	.596
	Industry	-.035	.720	-.118	.530
	Agriculture	-.059	.180	-.010	.891
Employment status	Self-employed	-.020	.320	-.035	.304
	Official	-.040	.042	.057	.073
	White-collar worker	-.067	.010	.032	.433
	Blue-collar worker	-.191	.000	.134	.001
Number of participations in adult education		.124	.000	-.124	.000
Participation in adult education in the last 12 months		-.053	.001	-.068	.007
Gender		.005	.734	-.002	.949
Age		-.014	.472	-.044	.055
Occupational status		.011	.586		

NB: n=2070

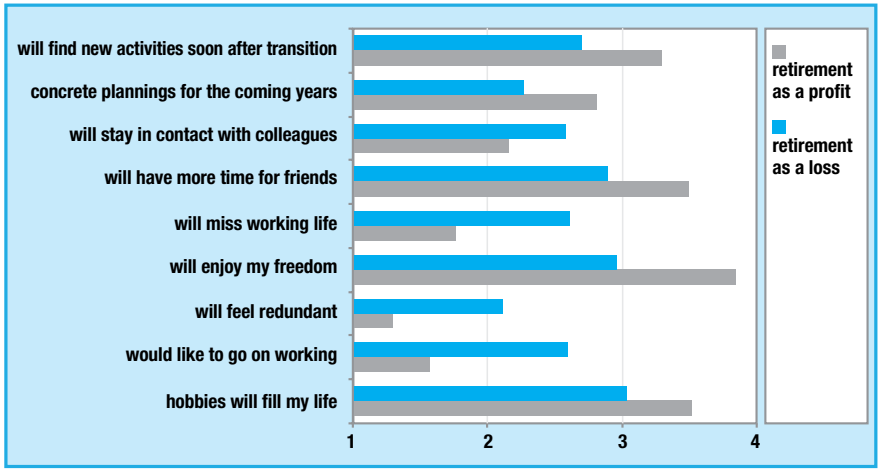
Source: Own calculations.

is remarkable, even when the correlation with the perception of age is only marginally significant. In both analyses, no significant correlation between the company size/location of company and perception of age was found. In addition, family status and the gender of the respondents do not seem to have a significant impact on the perception of age (Table 10:3). Finally, interactions between gender and level of education, family status and employment status and their impact on the perception of age were examined, but no significant results were found.

Aside from having an impact on the perception of age, the individual life situation influences educational behaviour of older adults. The approaching transition to retirement is one of the most meaningful and final transitions in older age. Therefore, we can assume that expectations connected to this transition and the proximity to withdrawal from the working world can also influence participation in adult education.

Around the end of working life, two types of employees can be identified in a two-step cluster analysis ([2]). A first group of occupationally-oriented individuals mainly fears a massive loss of quality of life and meaningful tasks

Figure 10:3 **Attitudes towards leaving the working world (difference between expected age of retirement and desired age of retirement in years)**



NB: n=2070.
Source: Own calculations.

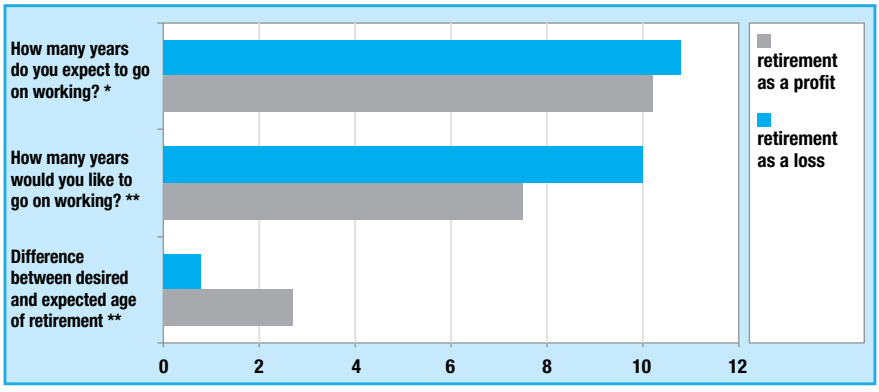
([2]) The cluster analysis included participation in different forms of non-formal adult education and the expenditure of time for the different courses.

caused by the discontinuation of occupational activities and challenges; they struggle to find alternative fields of engagement. A second group can be labelled recreationally-oriented and see retirement as a chance to focus on hobbies and other private interests.

As shown in Figure 10:3, retirement expectations vary enormously between these groups. People in the first cluster would rather work longer and fear the loss of social connections and purposeful tasks associated with retirement. Those belonging to the second cluster mostly see the new freedom and available new time resources which enable hobbies and private contacts. The only negative association connected to the end of an occupational career is the loss of contact with colleagues in the workplace. In general, this group passes through the work-to-retirement transition more easily and does not perceive it as a painful separation.

It may be personal interest and activities outside of one's job which lead to further continuing education activities in the second cluster; this is more oriented towards recreational and cultural activities than the first cluster, which is more job oriented. Compared to the 46.0 % of respondents in cluster one who had participated in education within the previous 12 months, 48.6 % in cluster two have attended educational events in the same time period. As continuing education – also among the 45 to 65-year-olds – is mostly understood as continuing vocational training, this result is not surprising. Individual interests and hobbies do not negatively impact on participation in continuing vocational education and training. Educational attainment could also play a role here.

Figure 10:4 **Remaining duration of working years (expected and desired)**



NB: n=2070
* $p < .05$ ** $p < .00.1$
Source: Own calculations.

Those with a more positive attitude towards retirement (cluster two) tend to have a higher level of education. For example 27.5 % have a higher level of schooling and 21.7 % have a college degree whereas for the first cluster these percentages are only 23.2 and 17.4 respectively.

People who primarily see more opportunities for interests after retirement want to leave work sooner than they consider realistic for themselves. While both clusters hope that their working life will end sooner than expected, for those who see the transition to retirement as a loss the difference is smaller (0.9 years). Figure 10:4 shows that the gap between the date when they expect to retire and the time they would like to stay in work is clearly larger for those older workers for whom retirement is primarily a profit (2.5 years).

10.7. Conclusion

The transition from employment to retirement is a meaningful phase in older adulthood and is anticipated differently by different groups of workers. In contrast to Adis et al. (1996), only two types of expectations on the transition into retirement were identified. These expectations only differ slightly regarding educational activity. Recreational interests are important not only for successful retirement, but can also positively influence participation in continuing education. It was considered that a higher rate of educational activity can also lead to changed perspectives in the phase after the occupational career but, this hypothesis is not supported by the data. The interdependency between educational activities and the personal concept of age can also be viewed from two perspectives. A negative perception of age can become a barrier for participation in continuing education (Tippelt et al., 2008) and previous educational activities seem to have a permanent effect on the individual conception of age. The data support the conclusion that continuing education can play an important role in creating a positive concept of age which is, in turn, a relevant factor for successful ageing in terms of an active and autonomous lifestyle in old age (Baltes and Baltes, 1989).

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11. Working on: choice or necessity?

Pamela M. Clayton

ABSTRACT

The research focus is on personal and other factors that predispose, motivate and enable people to have longer working lives, drawing on both primary research and secondary sources. After a statistical review of the European situation, most of the data used are from the UK, where substantial research has been carried out. Unless otherwise stated, research data are British. Surveys have shown a range of predictive factors, and that financial necessity and job satisfaction are two of the most important reasons for working after normal retirement age. These are illustrated by selected biographies drawn from two research projects, followed by an analysis of enabling factors, including qualifications, the availability of jobs, attitudes and policies of employers, health, government policy and vocational guidance and mentoring. The chapter concludes that working after retirement age ought to be a matter of individual choice.

11.1. Statistical overview

Future projections suggest that the working age group will continue to shrink relative to the whole population and so the task of providing for current and future retirement pensions will fall upon a smaller number of people. One proposed solution focuses on extending working life. Many people can now expect to spend at least 20 years in retirement after State pension age (SPA). This post-retirement period may last for 30 or even 40 years for people who leave or are forced out of the labour market early.

OECD data from 30 countries show an average effective retirement age of 65 or over, for men and women, only in Iceland, Japan, Korea and Mexico. In addition, men retire after 65 in Ireland, Sweden, Switzerland and New Zealand and women in Portugal ([1]). However, a survey in 20 countries found that most employees and employers thought that people should work for as long as they

([1]) Directorate for Employment, Labour and Social Affairs, Employment Policy, Ageing and Employment Policies – Statistics on average effective age of retirement, downloadable spreadsheet, data to 2007. Available from Internet: http://www.oecd.org/ [cited 27.8.2009].

were capable and wished to (Oxford Institute of Ageing, 2006a).

SPA or official retirement age in Europe is currently between 60 and 65 but in 2005 fewer than half of all Europeans aged between 55 and SPA were in employment and average effective retirement age was several years below SPA. Countries with above average rates were Denmark, Estonia, Ireland, Cyprus, Portugal, Finland, Sweden and the UK. Women were much less likely than men to be employed, though the actual rates vary from 54 % in Sweden to 6 % in Malta. Swedish men also had the highest rate (60 %), compared with 14 % of French men. Swedish women work longest, until an average of 63.5 years. It is not surprising, then, that even fewer people continued working after SPA. Only in Estonia and the UK do women tend to continue working after the SPA (European Commission, 2008). Overall, however, a small proportion of the 65-69 age group stays in employment (Table 11:1).

Table 11:1 **Employment rate of women and men aged 65-69 in 2005, percentages of age group**

65-69	BE	CZ	DK	DE	IE	EL	ES	FR	IT	CY	LV	HU	NL	AT	PL	PT	FI	SE	UK
Women	–	5.8	7.1	4.7	7.1	4.4	2.6	2.7	2.7	–	14.6	2.1	6.8	–	7.5	21.8	3.7	9.4	10.4
Men	3.9	10.7	22.4	8.1	23.9	15.5	6.5	3.4	12.2	31.8	25.2	5.8	13.7	7.9	13.9	36.3	8.1	20.0	19.0

NB: Unreliable data are marked '–'. Countries without reliable data are not included.
Source: European Commission, 2008.

This contrasts with the US, where 12 % of the population over 65 is officially economically active (European Commission, 2003a) and 19 % in their 70s are still working (Oxford Institute of Ageing, 2007). Yet 'increased participation of older workers is important if the EU is to create the estimated 15 million jobs needed to fulfil the target agreed at Lisbon (2000) of a 70 % employment rate by 2010. It is also fundamental to the future sustainability of our economies, in the face of expected reductions in the working age population' (European Commission, 2004). Hence the Stockholm (2001) and Barcelona (2002) objectives were to increase the activity rate of 55-64 year olds and raise the average age of labour-market exit by five years to 65 by 2010 (European Commission, 2003a, 2003b).

Some surveys in the UK show that as people approach retirement age, many contemplate carrying on working, albeit part time (CROW, 2004), and the decline in the value of pensions may well force people to continue who would otherwise happily retire, but fulfilling this wish depends on other factors, including motivations (Section 11.2) and the supply of work and other issues (Section 11.4).

11.2. Working after pension age: predictive and motivational factors for workers in the UK

Older people in the UK are among the most likely in Europe to continue working past SPA. Men and women are equally likely to work after SPA (partly reflecting women's lower retirement age) but men are much more likely to continue working until 65-69 or even 75-79.

11.2.1. **Predictive factors**

Predictive factors for working after normal retirement age (NRA) include: being in work; parental non-manual social class, which increases men's likelihood of staying in the labour market; having a small family (but not being childless); little previous unemployment; a partner still working; good health; and having started a career later in life (Blekesaune et al., 2008). People were more likely to continue working if non-working partners were in good health (Hirsch, 2003; Humphrey et al., 2003) and those in affluent regions had slightly more likelihood of continuing to work. One longitudinal survey found that those who reported in 1991 feeling very energetic were more likely than others to be working in 2000 (Smeaton and McKay, 2003).

Other factors are leisure and attitudes to work. In the EU, there are differences between men and women aged 65+ in their amount of leisure time. In all countries surveyed women spend more time on domestic chores and less on leisure than men. The differences are particularly marked in Spain; the most egalitarian countries are Finland, Sweden and the UK (European Commission, 2008). In any case, retirement does not always mean leisure. One quarter of families in the UK have their children looked after by grandparents, who are often retired, for an average of almost 15 hours a week, and three million people over the age of 50 are carers (Age Concern Policy Unit, 2008). Some workers do not wish to or need to give up their jobs completely for these reasons; they wish to work fewer hours or more flexibly (Hirsch, 2003). Increased desire for leisure or spending more time with family and friends is an important reason for the demand for flexible working arrangements (Eurofound, 1997; Oxford Institute of Ageing, 2006a).

For those who can afford to leave work but have no need to do so, attitudes to both leisure and work are important factors. Many people like work but, as they get older, demand more control (McNair, 2006). This may partly explain why those with qualifications are much more likely to work longer than those

without. Of men aged between 50 and SPA still in employment, two-thirds were, in descending order, skilled tradesmen, managers, professionals and associate professionals (labour force survey, 2003): in other words, in jobs with the potential, *inter alia*, to offer satisfaction, a measure of autonomy and incentive to continue.

Qualifications (as well as types of job) have been shown to affect the timing of labour-market exit but the patterns are not straightforward. A good occupational pension which can be drawn pre-SPA, significant amounts of savings or a tempting voluntary redundancy package make early exit feasible for more highly-qualified workers. So people planning to retire early tend to be highly-educated professionals, those on high incomes, in sedentary jobs and with private pensions. This group, particularly given their better health and longer life expectancy, would better benefit the economy by staying on, but this was the profile of many who did, in fact, retire pre-SPA. Low-qualified workers rarely have these luxuries but leave employment earlier than the high-skilled. It is probable, however, that they have spent at least as many years in the labour market and often in less satisfying work (European Commission, 2003a; Humphrey et al., 2003). Some, however, change their plans, as attitudes to work and leisure may change as one gets older (Phillipson and Smith, 2005).

Cultural attitudes to work are important in countries such as Iceland, where not working is against the prevailing ethic (Clayton et al., 2007), and expectations of retirement vary considerably around the world. In Japan, Mexico and the UK, many people plan or hope to continue working, whereas in Brazil and Hong Kong later life is seen as a time for relaxation (HSBC, 2005). Such attitudes can also be influenced by State policy, such that SPA or NRA effectively condition expectations of the end of working life (Humphrey et al., 2003). Since more than half of those aged 55-64 no longer in employment gave ‘retirement’ as the reason, ahead of illness, disability or redundancy (European Commission, 2003a), it appears that many view labour-market exit as normal, perhaps as a reward for having worked. In some cases, however, ‘retirement’ is a euphemism for inability to gain or regain a job and really means discouragement.

11.2.2. **Motivational factors**

The main motivations given in one British survey were ‘joint retirement, work satisfaction and maintenance of living standards’ (Smeaton and McKay, 2003, p. 9). In others, financial reasons were most important, followed by mental stimulation or a mixture of both (Boaz et al., 1999; Ipsos MORI, 2006). In a

survey of those who intended to continue at least to SPA, the commonest reason was financial, including the need to build up savings or pension fund; but a strong reason was enjoyment of their work, followed by the perception that work would keep them fit and active. Women were more likely to cite financial reasons but almost as many women as men cited enjoyment of working or of their jobs (Humphrey et al., 2003). Even where people helped care for grandchildren, some preferred to work fewer hours or more flexibly than give up their jobs completely (Hirsch, 2003).

Yeandle (2005) formulated a useful classification showing the variety of older people's motivations to continue: career changers who want to try something new; downshifters who want less stress, more autonomy; identity maintainers who use their existing skills in another setting; workers till they drop; low paid workers who have to work until forced to stop. Another analysis divides them into choosers, usually highly qualified and who will continue working if it is interesting; survivors, without qualifications and with little choice over whether they stay or leave, often being forced out for health reasons; and jugglers, mainly women, with medium-level qualifications and least likely to stay in work (CROW, 2004). Although dealt with separately here, many people have mixed motives.

11.2.2.1. *Financial reasons*

Financial reasons are necessity and choice (Irving et al., 2005). There is wide variation in the proportions of people over 65 at risk of poverty ([2]), especially among women. The lowest rates for both men and women are found in the Czech Republic, Luxembourg, Hungary, the Netherlands, Poland, Slovakia and Iceland, ranging from 3 % to 10 %; the highest are in Bulgaria, Ireland, Greece, Spain, Cyprus, Portugal and the UK (from 24 % to 51 %). Women are also at high risk in the Baltic States, Finland, Italy, Norway and Slovenia (European Commission, 2008). Since pensioners in the UK are at much greater risk of poverty than elsewhere in Europe, financial necessity is likely in many cases (Burholt and Windle, 2006). Women are particularly at risk of poverty and, in 2003, 28 % SPA+ were still employed at 61.

In this context, one must consider pensions and savings when considering working in later life. Separated and divorced women are more likely to carry on and even women with occupational pensions might need to work longer

([2]) Having a disposable income lower than 60 % of the national median disposable income after social transfers (European Commission, 2008).

if they had career gaps, to enhance the value of their pension. Both men and women with mortgages and men without occupational pensions have an incentive to continue. Working on is not necessarily motivated by fear of poverty, as SPA+ workers were more likely to be saving money, but, on average, earnings constituted a significant proportion of income, especially for women. Nevertheless, although some older people might be in financial need, these 'have often experienced a lifetime of disadvantage with attenuated employment opportunities leading to reliance upon state benefits, which in turn can function as an employment disincentive' (Smeaton and McKay, 2003, p. 34).

11.2.2.2. *Job satisfaction*

Quality of work can be defined in terms of attractiveness, work-life balance, opportunities for career development and appropriate training, pay and job security (Eurofound, 2007). For many SPA+ workers, however, the first two of these appear more relevant. Levels of complete job satisfaction were much higher among them than among all other age groups, irrespective of current pay, and four-fifths were satisfied or very satisfied with their jobs (Humphrey et al., 2003). Working on also seems to increase the desire among men to carry on working, with smaller proportions of SPA+ workers than those in their 50s reporting that they wanted to leave work the following year (Smeaton and McKay, 2003). The majority worked part-time and were thus overrepresented in sectors such as retail and catering, where part-time work is common.

Self-employment rises steeply for men on reaching SPA and those already self-employed are much more likely to postpone retirement. Increasingly, too, retired people find that they cannot manage on their reduced income and wish to return to employment. Since, even after a short break this can be difficult, a feasible option for professionals is self-employment (Clayton et al., 2007). Self-employed people are also more likely to report high levels of job satisfaction (European Commission, 2003a; Smeaton and McKay, 2003; Barnes et al., 2004), especially those who enjoy 'the flexibility of being their own boss' (McKay and Middleton, 1998). Some, however, continue working because they have no private pension (Dominy and Kempson, 2006; Sainsbury et al., 2006). Ethnic minority people and migrants in the UK are more likely than whites to be self-employed, either by choice or because of employer discrimination, and also express the desire or decision to carry on working, as do many employees (Barnes and Taylor, 2006).

SPA+ workers, particularly those who changed jobs after SPA, were commonly found in elementary occupations requiring little training. Those who continued in the same jobs were likely to have higher status and better paid jobs. It is unclear if a move to elementary occupations was by choice but 'the type of work pursued will depend on motivations for working' (Smeaton and McKay, 2003, p. 35). For example, on the face of it, neither financial need nor job satisfaction are satisfied by new low-paid elementary jobs. This perhaps explains why three-quarters of SPA+ workers continued in their pre-SPA job, albeit often on part-time contracts. Meeting other people, either as colleagues or customers, or taking a job without worrying responsibilities, can, however, be a powerful motivator; Grattan opens the intriguing perspective that there comes a time when many people simply want change (Grattan, 2003; Irving et al., 2005), as shown by the CROW survey that revealed one third of workers in their 60s had changed jobs or work roles (McNair et al., 2004).

11.3. Real lives: selected biographies of people working SPA+

The biographies summarised here come from the learning outcomes project ([3]) and the transnational third age guidance project ([4]), and are based on interviews with people who worked after retirement age. Real names have been concealed and identifying details omitted. They are divided into those who chose to carry on and those who felt that they had to, though motivations were more mixed than this dichotomy suggests. Between them they illustrate many predictive and motivational factors described above: skilled working class or middle-class but not wealthy background (1, 2, 5, 6); professional qualifications (1, 2, 3, 5, 7); still working in the same firm (1, 2, 3, 6); job satisfaction (1, 2, 3, 4, 5, 6, 7, 8); maintaining professional identity (1); divorced woman (3, 4, 8, 9); late starter (3, 9); self-employed (4, 5, 6, 9); likes company (4, 5, 9); financial need (8, 9); and work ethic (2, 3, 5, 6, 9).

([3]) Conducted as part of a project funded by the Scottish Higher Education Funding Council, Social, economic and personal outcomes of returning to education as adults. All names and identifying details have been changed or suppressed.

([4]) Third age guidance: developing and testing models of labour market guidance suitable to the needs of older people. Available from Internet: http://www.gla.ac.uk/ [cited 27.8.2009].

11.3.1. Choosing to carry on

(1) Paul is 70 and lives with his wife, who is retired. Although he had health problems as a child he has none now. He was from a middle-class but not wealthy family and through his mother's efforts was able to stay at school until 16. He started work as a clerk and then took professional qualifications which enabled him to gain a series of jobs of increasing status until he joined his last firm, where he stayed for almost 20 years. He officially retired at 65 but is still working part time (five hours a week) for the same firm for a small honorarium.

'The job I have now – I like it as an interest, it keeps me in touch with my former world [...] I do quite like it, there's no doubt about it [...] if I hated it I'd simply go to the boss and say I think you'd better get somebody else to do this.'

His main reason for continuing working is to keep in touch with his former full-time work. He combines work with non-vocational courses.

(2) Helen is a widow of 76 and now retired, living alone on a good income. She worked full time in the health sector until she was 69. She was from a middle-class but not rich background and had received a bursary for her university medical studies. She had spent very little time away from work to look after her four children, because she and her husband had been able to employ a full-time housekeeper.

'Well, one had to work, unless one had no conscience [...] and I didn't really receive any what you might call stated salary, but I'd to help out for at least three months at the mine, what with alcoholism and so on, because my husband was in charge of that district [...]'

Once the children were older she had worked full time. She still does a little work on a voluntary basis. She had continued working out of enjoyment and not from economic necessity.

(3) Angela is from a relatively wealthy family and during the course of her career acquired a doctorate and high professional qualifications. She was a late starter and attended university only in her 30s. She could have afforded to retire at 60 but she had a responsible job with great creative possibilities and continued to work until she was 63.

'I was still having a lot of fun, and I was in charge of designing the new layout for my department, which I really enjoyed.'

By that time problems were beginning to arise in her employer's organisation and she decided to leave, as she could easily live on her pension and investments. She did not stop working, however, for several years, as she did several spells of voluntary work, using her

professional skills in three developing countries, and some paid work as an evaluator. She is now 70 but is still doing voluntary work which takes up at least a day a week. She is divorced and lives alone but has a very active social and family life.

(4) Norma is from a poor working-class background and has no formal qualifications but acquired considerable skills through work. When her children were small she worked part time as a cleaner and, when her husband left, she was able to work full time in the same job, which she did until she retired. Before she left her employment, however, she had already started her own small cleaning business and, after retirement, she expanded this. She works 10 hours a week and although she has health problems these do not impede her. She has no plans to stop work. The money is very useful and she enjoys the social contact.

(5) Michael was born during the 1930s recession. Although a skilled man, his father had, like so many at that time, become unemployed. Luckily Michael won a scholarship to grammar school and went on to university, which proved a springboard to a lifelong career in education, which in turn formed his appreciation of the value of adult learning. Since being at school, however, he had always been entrepreneurial, motivated not by money but by the desire to help others. This was greatly influenced by his Methodist background. He has since discovered that the modern term is 'social entrepreneur'. When the time for formal retirement came he continued to set up and run small organisations, and founded his most recent company at the age of 76, while working part-time as a university professor. Michael claims from experience that there can be no end to learning and that lifelong learning is a meaningful idea only if it passes into the last years of life. He believes not only that one can continuously learn new things but that learning is a shared experience and it is possible to keep helping other people to learn, whatever age they are. He ascribes his essential motivation to close friendships and wider personal attachment.

(6) Donnie left school at 15 and took up an apprenticeship in hairdressing at a well-respected salon in London. After a few years he returned to Scotland and, after a spell at another salon, he opened his own and has been self-employed for over 30 years. He has done extremely well, owns the building in which he works and a few years ago leased all but one chair to another hairdressing firm. Now that he is nearly 67 he works part-time. He has a very loyal clientele and will no doubt work until he can no longer do so. He has some health problems but they

are manageable. He no longer needs the money but he has always loved his work. His standards for himself are high. He ascribes this to the working-class work ethic of his childhood. He says that one should give equal care to every client. When pensioners are given special discounts they are assigned to young apprentices and don't always get the care they deserve. This is wrong.

(7) Timo was brought up in Tampere, Finland. He taught himself to play the violin and gave his first performance in 1953. He was a teacher in a school for disabled young people until he retired, and then he started to play again, with Orquesta La Milonga (tango orchestra). What they play is the tango as it used to be in Argentina in the 1920s (known as milonga). This makes them very popular in South America, where they have played seven times, as modern tango is influenced by American culture. The group does not play to make a living but because they love playing tango and this gives them the opportunity to play it as it used to be played. Tango was born in harbours and bordellos and, since it was forbidden, its devotees developed a secret language in which to talk about it. For example, 'tango' was 'gotang'. Today however it is so respectable that it is played in nice Finnish restaurants with very well-used dance floors!

11.3.2. Having to carry on (numbers 8 and 9 describe women working on mainly for financial reasons)

(8) Agnes is 60, divorced and living with her daughter. Both are working full time and they live in a house tied to Agnes' job. She came from a working-class family and left school at 15 without qualifications. Her first job was as a shop assistant. She then went into nursing but did not complete her training because she married and started a family. After that she returned to education and gained some school and university qualifications. She had progressed more slowly than she wished because her husband had refused to let her attend class more than one evening a week, so full-time education was out of the question. She has been with her present employer for over 10 years and likes her job very much, although it can be stressful:

'I like my job very much but I hate when they die [...] that has got harder as time has gone by [...] I've got one lady in the home who's very, very ill. It's breaking my heart, but I think we're going to have to ask for her to be taken into hospital [...] her stepdaughter is beginning to crack, and although I'll do my best, I can't sit in her flat all day. That's a real problem.'

Her main reason for doing paid work is to earn money for basic essentials but she also needs a home for her daughter who was a small child when her marriage broke up. She is now focusing on finding a home for when her job ends.

(9) Marjorie is carrying on for a mixture of reasons, but probably principally for financial reasons.

She is from a relatively poor family but was lucky enough to go to university. Once her children had left home and she was separated from her husband, she studied for a doctorate and began a career at the age of 50. She is still working at the age of 65 and plans to carry on as long as possible, for two main reasons: she will have a very small pension so she needs to work and accumulate more savings; and she loves the work she does, which involves a great deal of responsibility and autonomy, but also has many bureaucratic requirements.

'I don't love it all the time – it's sometimes very stressful and I get quite ill. Then I carry on because I need the income. But most of the time I'm really happy and I still feel quite creative, and I love the people I work with.'

As a fallback, she has started a family firm through which she plans to continue to market her skills once her full-time employment ends. She received some very useful vocational guidance prior to starting the company but this was the first she had had in her life. As a hobby she is taking another degree, part-time. She really doesn't know how she would manage psychologically without work.

11.4. Enabling factors

Enabling factors are those that may be amenable to policy intervention. These include education and access to skills enhancement; employers' attitudes and policy; adequate health; government policy; and vocational guidance and mentoring.

11.4.1. **Education, qualifications and access to skills enhancement**

Except in Greece, Cyprus, and Portugal, the higher the level of education, the greater was the likelihood of continuing (Table 11:2). Overall, around 19 % of men and 11 % of women with tertiary education, compared with only 9 % of men and 4 % of women with basic education, were employed SPA+. Particularly high graduate employment among men was found in the Czech Republic, Denmark,

Italy and Sweden. The data, however, is incomplete and only the Swedish data is reliable for all categories (European Commission, 2008). Recent studies in the UK, however, come to the same conclusion, particularly for women (Blekesaune et al., 2008).

Table 11:2 **Relationship between education and staying in employment in the EU**

Age 65-69 in employment	Low (basic schooling)	Medium (secondary education)	High (tertiary education)
Women	7.9	7.9	15.7
Men	17.2	18.8	33.1

Source: European Commission, 2008.

Where older people do not already possess the requisite education and skills, they are often excluded from the means which would assist this. The main discrimination in training provision in certain countries is on the grounds of age. A survey in seven European countries found that the amount of vocational training undertaken, especially that which was helpful for career progression, declined with age; yet older workers were more likely than younger ones to state that they needed training in certain aspects of their work, particularly computer skills (Spence and Kelly, 2003). Computer use is less common among older people. Whereas most people aged 16-24 regularly use a computer and the Internet and have medium to high computer skills, few people aged 55-74 fall into these categories, albeit with wide national variations, with people in Iceland, Germany, the Netherlands, the Nordic countries and the UK having far above average computer use and skills (European Commission, 2008). Only in the Nordic countries and the UK did more than 10 % of older workers participate in training, a situation already addressed by the Employment Directive (Council of the EU, 2000). In Europe as a whole, training was undertaken by 2 % of unskilled workers over 55 but by 10 % with degrees in the same age group, despite evidence proving that 'the productivity potential of older workers is not impaired by age but by skills obsolescence – something that can be corrected by training' (European Commission, 2003a, p. 174; Eurofound, 2007).

In the UK only 23 % of older employed people had received training in the previous 13 weeks in 2001 compared with 40 % of those aged 16-24 and 30 % of those aged 25-49 (Harrop, 2004, p. 23). The National Health Service faces a severe shortage of nurses and is trying to attract older and

former employees, yet it has done little to retain them in the first place by retraining or giving the option of physically lighter work. Hence, employers are often not prepared to invest in skills training for their older employees, especially the less-skilled, and encourage them to take responsibility for their own learning. Thus, unskilled workers, in an era of rapid technological change, are more at risk of dismissal, perhaps in the guise of early retirement. Instead, employers still focus training opportunities on younger workers, in the mistaken belief that they will stay with the organisation longer than will older workers (Hirsch, 2003). Not all older people, however, desire formal training or retraining. Some may see it as 'going back to school', feel 'too old to learn' or think they are incapable of doing another kind of job (Ford et al., 2003).

11.4.2. **Attitudes and policies of employers**

In times of high unemployment or company downsizing, and in countries with a youthful population, there is a tendency for employers to dispense with older workers; where there is a skills shortage and a declining pool of younger workers, employers are more likely to value the skills and experience of older workers (Oxford Institute of Ageing, 2005, 2006b). In the UK there is a paradox: small companies are the hardest to reach for the purposes of conveying information, for example, about anti-discrimination legislation, yet they are in fact much more likely to employ older people and retain them SPA+. Only 30 % of older workers were employed in firms of 50 or more employees and most worked in micro companies (McNair et al., 2007; Smeaton and McKay, 2003). This suggests that small companies fulfil two requirements: flexibility and good working conditions that encourage workers to stay on. As in the case studies below, some large companies also offer good role models.

11.4.2.1. *Anti-ageist attitudes and practices*

Not only have older workers been leaving or forced out of the labour market early for the past 30 years, age discrimination in recruitment and training have been observed for well over 10 (Eurofound, 1997). In the UK ageism is the most widespread form of discrimination but so multifaceted that it is hard to define or find consensus (Policy unit, 2008; Employers forum on age, 2006) and in terms of threat to life and wellbeing less serious than racism (Ray and Sharp, 2006). It can, nevertheless, be defined simply, as far as the labour market is concerned, as 'the assumption that someone's age makes him or her less able to do a particular job' (Stoney and Roberts,

2004, and see Clayton et al., 2007; TAEN, 2006) and despite reservations on the quality of discrimination data generally (Reuter et al., 2004), there is concrete evidence of ageism in employment.

There are different aspects to discrimination, both open and effective. Open discrimination occurs when there is a fixed retirement age. This is sometimes well below SPA and is based on the idea that certain jobs can no longer be done after a certain fixed age, irrespective of the capacity of the individuals concerned. In other cases people may be pressured into taking early retirement when employers need to shed labour or replace older empolyees with younger, cheaper workers. For people made redundant in their 40s or 50s, there is well-documented evidence that they have much poorer than average access to jobs and the majority never find employment again. Their access to good-quality, well-paid or satisfying jobs, reskilling, apprenticeships or career development support is even worse (Clayton, 2007; Hirsch, 2003).

Some employers wrongly stereotype older people as being more expensive in terms of salary and unable to learn or retrain, and some insurance firms will not provide liability insurance for SPA+ workers. A 2002 study on early labour-market exit by Barnes discovered that some employees left early because of perceptions of age discrimination in the workplace (Hirsch, 2003). Hence some who might wish to continue beyond NRA are not allowed to do so, for various reasons; some reasons are practical but others are based on stereotyped notions of the capability of older people.

There is, however, a recognised business case for retaining or recruiting older workers: continuing to reap the benefits of previous investment, preventing skill shortages, recruiting from the widest possible talent pool, reflecting the whole customer base, and promoting workplace diversity (Eurofound, 1997, 1998) and for diversity in general (European Commission, 2005).

In the UK, things are changing. A recent survey of employers found that 57 % had no compulsory retirement age and most of those that did would allow people to stay on if there was no objection from the business point of view (Metcalf and Meadows, 2006; Employers forum on age, 2002; Employers forum on age and IFF Research Ltd, 2006; Line, 2007). Denmark is one of the few European countries without NRA but there are increasing measures in other countries, such as the Netherlands, to extend working life (Eurofound, 2004).

11.4.2.2. *Flexibility*

Two-thirds of women and two-fifths of men were employed for fewer than 30 hours per week and a third of women and one-fifth of men for fewer

than 15 hours. Part-time working was much more prevalent among men in Sweden and the UK (European Commission, 2008). There is a variety of reasons: desire to spend more time with family and friends, hobbies, caring responsibilities, health problems and so on. 'Having reached official retirement age these men and women can either afford to reduce their hours, desire a better work/life balance or, for health reasons, need to spend less time at work' (Smeaton and McKay, 2003, p. 40). Health and disability problems are not necessarily a bar to continuing in employment, as long as the type of work undertaken is suitable and the employing organisation takes a flexible approach (Irving et al., 2005).

Few SPA+ workers care for others for up to 10 hours a week (Smeaton and McKay, 2003) and many carers wish to, or need to for financial reasons, work after retirement age; other reasons are to avoid boredom, meet people and retain a non-carer identity (Arksey et al., 2005). In the UK, flexible pre-retirement options are also generally popular and increasing numbers of men over 60 work part-time. The majority of older men and women working part-time state this is their choice (Loretto et al., 2005), though evidence on the availability of such options is contradictory, especially for men (Metcalf and Meadows, 2006; Vickerstaff, 2007).

11.4.2.3. *Good working conditions*

Work organisation outside EU-15 tends to involve 'more centralised and more hierarchical work, less autonomy, fewer responsibilities, far less control over work and fewer training opportunities' (Eurofound, 2007, p. 7; 2004). Workers in such organisations are less likely to wish to stay on, given the chance, than those who experience work satisfaction. This is shown in British surveys, which also showed that people working for inflexible employers were more likely to leave the labour market altogether when forced into retirement (Blekesaune et al., 2008; Smeaton and McKay, 2003).

Some feel unappreciated by their employers or are not offered more flexible working patterns where this would enable retention. Hirsch (2003) cites as one reason for early exit that work had become more pressurised and some had grown to hate their jobs. One sign of appreciation is access to useful training, preferably in consultation with the employee, for example through an appraisal system. Where employers provide training for older people, the possibility of them staying on increases (Harrop, 2004).

11.4.2.4. *Examples of age-friendly employers*

An increasing number of employers in the UK realise that there is a good business case for hiring older workers, and the examples here, taken mainly from the Employers forum on age, are only a few of many. Many are from the service sector, which has expanded and is more age-friendly than manufacturing and construction (Smeaton and McKay, 2003). There are examples of practices both to retain and recruit older workers:

(a) the Nationwide Building Society and Marks and Spencer have ended the mandatory retirement age;

(b) HBoS (Halifax/Bank of Scotland) has a flexible approach to retirement: people can take career breaks and opt to work beyond retirement age (though the take-up for the latter is very low so far);

(c) a Scottish food production company with over 100 employees offers workers year-on-year extensions beyond the SPA, doing either the same or a different job according to preference – the company now has three employees aged over 70 ([5]);

(d) B&Q, a large do-it-yourself retailer, has long made a point of recruiting older people and has now removed from its application forms the obligation to state date of birth;

(e) a large pharmaceutical company, GlaxoSmithKline, in its determination to eliminate age bias in recruiting, delivered extensive training not only to its own human resource staff but also to external recruiters and sub-contractors on age discrimination and the benefits of age neutrality;

(f) Heritage Glass, a small company founded in 1999, has never had a mandatory retirement age and recruits candidates at any age on merit. It also has a flexible retirement scheme.

11.4.3. **Health**

In the EU, women aged 65-74 are less likely than men to report good health (except in Ireland, the UK and Iceland), and more likely to report bad health (except in the Netherlands, Finland and the UK). Generally, the more prosperous the country, the more positive was reported health status. In Denmark, Germany, Ireland, the Netherlands, Sweden and the UK, 60 % or more of both men and women said their health was good. In Estonia, Latvia, Hungary, Poland, Portugal and Slovenia, however, fewer than 20 % stated that they were in good health, and reported levels of bad health in these countries were high in all but Estonia and Slovenia. Among those aged 75-84, the highest levels of good health, at

([5]) Information at the *Recruitment, retention and retirement: age diversity in employment* seminar, Strathclyde University, 20 May 2003.

least 60 %, were reported in Germany and Ireland (European Commission, 2008). This is important because health problems are the greatest barrier to staying in or returning to work (Phillipson and Smith, 2005). The older people get, the more likely they are to become ill. This appears to accelerate for men from the age of 50, whereas the pattern for women is a more uniform decline in health (Office for National Statistics, 1997). Nevertheless, some SPA+ workers reported poor health but still worked (Smeaton and McKay, 2003).

One cause of ill health is work. Despite some improvements since the European Framework Directive of 1989, there are still many accidents and work-related illness, especially in SMEs and outside the EU-15. Work-related health problems increase with age, the two most common diagnoses in 1999 being musculo-skeletal disorders and stress, depression and anxiety; work accounts for nearly one-fifth of long-term health problems or disability (Debrand and Lengagne, 2008; Eurofound, 2007), especially among lower-skilled workers (OECD, 2006). In Finland, there are active and targeted measures to help people stay in work longer, involving not only the Ministries of Labour and Education but also of Social Affairs and Health and the Finnish Institute of Occupation Health (Clayton et al., 2007).

Those working SPA+ were usually, however, likely to report good-excellent health, more so than non-workers. Contrary to expectations, older workers are less likely than younger ones to be absent through sickness (Stoney and Roberts, 2004). A good number (18 % of men and 19.7 % of women) were working on in elementary occupations requiring some physical stamina (Smeaton and McKay, 2003), which implies that poor health or disability forces out many who would otherwise have continued working from choice. Another factor is the health of the partner (Hirsch, 2003).

Health is a complex issue and there are many theories about the causes of ill-health in social groups. Health service use suggests class differences in health, with the higher qualified suffering less poor health than those with fewer skills (Office for National Statistics, 1997). Ethnicity also plays a part: the over-65 ethnic minority population in the UK is more likely to be sick or disabled than the majority (Katbamna and Matthews, 2006).

11.4.4. **Government policy**

Government policy can have an important impact on continuing in work SPA+, particularly in the areas of State pensions, combining pensions with continued employment, anti-discrimination legislation, funding for adult education, support for carers, enforcement of health and safety at work, and providing measures for the physical and psychological wellbeing of workers.

The British government's programme, outlined in *Opportunity age*, includes incentives to work longer and helping older people in work with skills (HM Government, 2005); its age positive campaign, designed to tackle ageism, has been running for some time (TAEN, 2007). It is possible to receive the State retirement pension while continuing working, or to defer it for five years and receive a slightly greater amount; it is also possible now to draw an occupational pension while working for the same employer. Improvements have been made in support for carers. There are policy contradictions, however. On the one hand, the official retirement age has been set at 65, which is advantageous to those working in firms which had a lower age, though those who wish to continue after 65 can be refused by employers without explanation. On the other hand, the government has set a public service agreement target to increase the numbers in employment up to 69. The report, though broadly welcomed, has been criticised on the grounds that aspirations for increased access to lifelong learning and help to get older people back to work are not backed by sufficient funding (NIACE, 2005; TAEN, 2005).

11.4.5. **Availability of guidance and mentoring**

One of the most pressing needs for people on the verge of retirement is to review their future income and financial needs: independent professional advice may be needed (Horack et al., 2008; NIACE, 2002). Other useful forms of guidance and mentoring are aimed at learning, career change and development, setting up a business and planning for retirement.

Unfortunately, older people have poor access to vocational guidance and counselling, particularly that suited to their needs. Guidance for older adults remains seriously underdeveloped in most European Member States, as an OECD career guidance policy review demonstrates (OECD, 2003). One survey found that four-fifths of employees think that they need advice to manage their careers but only 13 % felt that the advice they received, usually from line managers with little or no training in this area, had any value, and very little of it concerned job transition. In particular, 'career development for older workers is not a priority issue […] there is a very passive view of managing this segment of the workforce' (TAEN, 2003, p. 6).

Previously in the UK, third age guidance focused on the unemployed or those out of the labour market, for example, through New deal 50+ (Moss and Arrowsmith, 2003), and the Over 50s outreach pilot; the latter is notable for encouraging non-registered non-working people to use the State employment service for advice not only on paid work but also on voluntary work (Jones and Griffiths, 2006). For those planning to postpone retirement,

whether continuing in the same job or seeking change, vocational and educational guidance also offers great benefits (Grattan, 2006), a fact long recognised in Scotland and Wales, which have all-age guidance services (Clayton et al., 2007). This has at last been instituted in England (TAEN, 2008), following several important studies and campaigns stressing the need for appropriate guidance for the older age group (Ford et al., 2003; Ford, 2005; TAEN, 2001).

11.5. Conclusion

Although this chapter has focused on the minority of SPA+ workers, encouraging people below retirement age to stay on rather than coaxing them back after retirement is more likely to increase the older activity rate. Hence it was considered important to review working life and employer attitudes as well as the characteristics of older workers to develop policies for the labour market.

Older people are not a homogeneous group, but subdivided by gender, age, education, work experience, ethnicity ([6]), health, family situation, geographical location, personality and wishes in relation to types of job and hours of work or desire for leisure. Similarly, the opportunities for older people to continue working after NRA vary according to, *inter alia*, education, qualifications, country and region, sex, sector, the NRA set by the employer (which may be below SPA, even under current age discrimination legislation) and the attitudes of individual employers. There is a complex relationship between qualifications and age of retirement: having qualifications makes continuing productively and enjoyably in paid work more likely while at the same time making early retirement financially possible. People with no qualifications or only basic skills may need to continue for financial reasons but are unable to do so for health reasons or because suitable jobs are not available.

Ideally, working after SPA or NRA should be a matter of choice. We should not deny people, after a lifetime of often hard and sometimes unpleasant work, the opportunity to enjoy retirement in the ways that please them. This applies particularly to working class people with lower life expectancy. At the same time, if someone wishes to work and can work productively, perhaps

([6]) The paucity of research on ethnic minority workers makes it difficult to draw conclusions but in view of the growing importance of this group in Europe, further work would be useful.

under more flexible conditions such as working part time, they should be encouraged to do so.

For some people, however, working on is a necessity, usually for financial reasons, either to avoid poverty or build up savings, or because their personalities demand the challenges and delights of working life, or companionship, or a change of scene. Although this chapter has focused on paid work, it should be pointed out that voluntary work fulfils many of these requirements, though not the need for a greater income. For others, financial or other need, or wish to work is constrained by factors such as poor health, caring responsibilities, lack of opportunities and so on. Choice, then, is a luxury denied to many.

From the point of view of the demand side, the pool of potential people aged SPA+ is relatively small and tends to exclude both the low-paid and the well-paid with occupational pensions. Decisions of couples to retire at the same time are personal and not amenable to policy change. The gradual ending of final salary pension schemes may force some of today's workers to continue SPA+. Government and employer policies, however, can effect some change, such that, all things being equal, more people will want to continue working if they like their jobs, or will return to employment after trying out retirement, taking vocational guidance to find a new, satisfying career and participating in education to expand their horizons.

Finally, a notable omission from this chapter concerns voluntary work outside the family. In countries with this tradition, such work adds substantially to the economy in performing tasks that would otherwise have to be paid for.

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PART IV

Enabling longer careers: guidance and employer-supported active ageing

Helping older adults make career decisions
Lyn Barham and Ruth Hawthorn

Keeping older workers committed and employed through formal and informal HRD initiatives
Ida Wognum and Martine Horstink

Enabling longer work life: four case studies
Jan Holmer, Roland Kadefors and Per-Olof Thång

Self-organised learning by older workers: a self-realising goal?
Gerald Straka, Johannes Rosendahl, Gerd Spevacek and Jörg Hobusch

Older workers, older learners: the contribution of employers in the British East Midlands
Vanessa Beck

12. Helping older adults make career decisions

Lyn Barham and Ruth Hawthorn

ABSTRACT

Two interrelated studies examined the barriers for older people in accessing career advisory services. One strand of work explored the media through which services are delivered; the other examined whether characteristics of older people mean that services should address issues different from those that typically concern younger people. The studies note the considerable diversity in the concerns and needs of older people, outweighing any commonality of age, and creating a need to balance respect for diversity with awareness of general trends that affect many people towards the end of their working lives. Both the underlying approaches to career support and the media of service delivery need to be adaptable to diverse needs. Service design and staff training need to address these special requirements, either through special provision or through specialised teams within all-adult career advisory services.

12.1. Background

The world of work in the 21st century is remarkably different from the middle of the 20th and individuals have had to respond accordingly. The economies of western Europe have changed from manufacturing-led to service-led and to knowledge-led in the space of the working lives of people born before 1950. In some EU Member States this has been accompanied by a shift from a command to a free-market economic system, further increasing the change in the ways labour markets operate. Continual retraining, constant learning and more frequent job-changes have become the norm in most economic sectors and most Member States, very different from the expectations of people who entered the labour market around the middle of the last century. Many individuals have become more adept at steering their way through this but, even for them, career guidance can play a significant part in helping both with immediate problems and in acquiring the skills needed for planning.

The European Commission in 2004 recognised the importance of lifelong careers guidance to assist this: 'effective guidance provision has a key role to play in promoting social inclusion, social equity, gender equality and active citizenship by encouraging and supporting individuals' participation in education and training and their choice of realistic and meaningful careers' (Council of the EU, 2004). In the following year Cedefop (2005) published advice to Member States in the form of a checklist of strategies conducive to developing a sound national system ([1]).

However, the implications for career guidance services targeted at adults in the later stages of their working lives may differ from those in earlier stages. People in middle age must learn not just the new skills of career management, but also unlearn the techniques that were appropriate in their youth. Research indicates that this requires some different professional techniques (for summaries of these see Ford, 2005 and TAEN, 2008). To what extent have these needs found their way into national policy and practice among Member States? Recent research funded through the Leonardo da Vinci programme found examples of good practice in nine Member States (Clayton et al., 2007). These were largely in the form of careers education programmes for individuals trying to return to the labour market. A review of careers guidance (that is, shorter helping interventions focused on immediate decisions, as distinct from careers education) for older adults in employment, across Member States (Hawthorn, 2008a), suggests there are still serious gaps. Programmes are needed to help those in, those seeking, and those considering reducing paid work.

In the UK, attention has been paid to the problems faced by older people using careers advice services, and to the challenges faced by those services when public funding is both low level and short term. This was partly prompted by changes planned for raising the age at which people will be able to draw State pensions and the realisation that careers advice could contribute to helping keep this age group in employment (Ford, 2006). The large UK research programme 'Challenging age' (DfES, 2003) provided detailed information on users and services in six geographical areas as well as further information from experts and users running specialist guidance services. While, sadly, many of the specialist guidance services that took part have since disappeared, there is increasing interest in how to make national

([1]) This handbook followed from the findings of a Europe- (and world-) wide survey of national careers advice conducted initially by the OECD, and then by Cedefop, the European Training Foundation (ETF) and the World Bank. The European results are summarised in Cedefop, Sultana (2004).

generalist services more user-friendly to older people ([2]).

In 2006, the UK Department for Education and Skills commissioned an evaluation of a pilot programme run by the national careers advice service provided by telephone, e-mail and online through the service that was then known as learndirect ([3]) (Page, et al, 2007). This guidance pilot was offered to people of all ages. The evaluation compared the take-up, user views, and quality of recorded calls measured against a quality framework derived from best practice in face-to-face guidance, so it was possible to explore differences between older and younger users. The authors reported that the trial had: 'not attracted representative proportions of callers aged over 50. This is also true of face-to-face services, although nextstep services (publicly-funded careers advice in England) have a larger proportion of clients in this age group. The over 50s were significantly less likely than other callers to report that learndirect guidance helped them to make an informed decision about their career, although calls with callers in this age group did score "good" and "excellent" ' (Page, et al, 2007, viii).

The authors went on to suggest that: 'external factors, barriers to learning, or labour-market outcomes may affect older service users' reflections and overall satisfaction with their situation, rather than being a reflection on the service *per se*, but this finding needs further exploration'.

In 2006-07, funding became available from the body then responsible for learndirect, the University for Industry, to explore what were the barriers facing older users of advice services. They commissioned two studies that explored different aspects of this problem:

(a) was it something about the media of telephone and electronic technologies that was putting older people off (project A)?
(b) were the challenges of career management different for older people from those of adults earlier in their careers (project B)?

This chapter provides a summary of the findings of these two projects. It explores older people's attitudes towards and capabilities for using electronic media (telephone, e-mail and Internet in particular) as part of career planning, that emerged from project A. It summarises recent literature on career management skills and on the diverse characteristics of older people, and reports on the findings from project B on the forms of career help that are needed at later ages and career stages. Finally, it considers implications for

([2]) For example, concurrently with the work described here, learndirect commissioned a series of web pages aimed specifically at people over the age of 50 (Learndirect, 2007).

([3]) Since the completion of these research projects the learndirect service has been renamed Careers advice. Its website is available from Internet: http://careersadvice.direct.gov.uk/ [cited 27.8.2009].

the policy and guidance provision required to address the needs identified by the two projects (Hawthorn, 2008b; Barham, 2008).

12.2. Research methods

Field research for both projects was conducted during the autumn of 2007 with users and practitioner/managers of English careers advice agencies in the rural southwest, a south-central area of high employment, and two northern inner-city areas characterised by unemployment and deprivation. Most of the provision was for older adults as part of an all-adults service, but two were exclusively targeted at older people. Respondents ranged between 50 and 74 years of age and all interviews were conducted by a team of four experienced researchers, either full fellows or associates of NICEC ([4]). For comparison in project A, a sample was also drawn from users and advisers of the telephone-medium learndirect service.

A total of 55 service users were interviewed in relation to project A (45 from face-to-face services and 10 who had used the telephone service) and a further 17 people in relation to project B. In-depth interviews were conducted for both projects, based on semi-structured interview schedules. Interviews were also conducted for both projects with a total of 12 professional staff from all the services which participated. All interviews were conducted face-to-face except those with the 10 learndirect users and one practioner who were interviewed over the phone. Learndirect advisers were interviewed in a focus group.

Most service users were interviewed individually; some were interviewed in small groups of three or four but, where possible, responses were recorded individually. This approach was based on a methodology adopted with comparable groups in the challenging age project (DfES, 2003), a more recent study of older workers by Age concern (Collins, 2006), and a study of older Internet users by Millward (2003). Interviews for project B were audio-recorded.

For project A, information was collected from respondents about their frequency of use, and their confidence in using telephone, e-mail and Internet separately for everyday purposes (such as social, health and finance issues) and for activities related to seeking work or learning opportunities.

For project B, it was important not to bring interviewer preconceptions to the interviews. Interviews were structured so that they collected respondents' stories about their recent working lives, an account of their current situation,

([4]) National Institute for Careers Education and Counselling. Details available from Internet: http://www.crac.org.uk/nicec [cited 27.8.2009].

and their hopes and plans for the coming years. At each stage, respondents were asked to compare their current issues with those of younger people, including themselves when younger. Analysis was through an approach based loosely on grounded theory ([5]) methods.

Data for each strand of the project were analysed and reported separately, along with a related literature review for each strand.

12.3. Research findings

Findings from both projects should be regarded only as indications for exploration by future, more systematic research. The older people in the study were those who had recently sought help from an advice service and, in most cases, were recommended by the advisers concerned. This meant that most were unemployed or facing employment problems, perhaps with a higher rate of health difficulties, and with previous employment more likely to be in sectors subject to structural employment change (Barham, 2008, p. 4). However, in both studies there were findings which both confirmed other research, and which suggest fruitful areas for further work.

12.3.1. **Project A – ICT and the over 50s: overcoming barriers to employment and training advice**

12.3.1.1. *ICT skills generally*

The 55 people in our study showed a considerable range of ability and willingness to use telephones, Internet and e-mail for enquiries about learning and work. There were some who were able and willing to use these media and a significant group who were not able or not willing to do so, even for general everyday purposes. There were further differences:

(a) 'can' does not mean 'will': confidence in using these media for everyday purposes did not automatically imply willingness to use them for learning and work enquiries;

(b) 'cannot' does not mean 'will not': some who did not regard themselves as confident users did nonetheless use them when necessary and many were learning to use Internet and e-mail or would do so if they had sufficient motivation.

([5]) Grounded theory is a systematic qualitative research methodology which develops concepts and theories from data, as opposed to starting with an hypothesis. The theory was developed by Glaser and Strauss (1967).

Those who preferred face-to-face advice were not necessarily technophobes: several would use the Internet rather than the telephone for seeking information if they could not get it face-to-face.

12.3.1.2. *Telephones*

Many face-to-face respondents had problems with the use of telephones for careers advice, though some could see they might help people in certain circumstances.

Drawbacks

Many of the objections to the use of telephone for advice about learning or work were not specifically age-related. They included communication issues, such as:

(a) worrying that they would not remember all the things they wanted to talk about;
(b) not being able to interpret the meaning or intentions of the adviser without visual clues;
(c) not feeling themselves to be very articulate;
(d) not having confident English (and having a mother tongue not included among those on the learndirect minority language helpline).

Others were more specific to advice services:

(e) not wanting to talk about personal matters with someone they did not know;
(f) wanting written information for accuracy but also for accountability.

Some were to do with bad experiences of other telephone applications:

(g) strong dislike of telephone menus;
(h) strong dislike of telephone answering machines.

A few were not necessarily age-related but perhaps more likely to affect some older people:

(i) hearing loss;
(j) the cost of telephone calls to people on very low incomes.

Advantages

The learndirect users were happy to use the telephone because they were able to obtain help without having to make the journey to a face-to-face service (and they preferred the telephone to the Internet). Even those who did not want to use telephone services themselves conceded that some people might like a service that:

(a) was accessible at all times;

(b) could offer more focused discussions;
(c) provided access to a wide range of information;
(d) permitted printing out information to think about it;
(e) would be easier than face-to-face if you do not like the adviser.

Learndirect users reported strong satisfaction with the quality of the service they had received, whether it was for simple information or more complicated advice. Equally, discussion with learndirect advisers showed a high level of understanding and concern for older service users.

12.3.1.3. *Internet and e-mail*

A positive response to 'do you have access to a computer?', a question sometimes used to establish whether it is appropriate to direct someone to web-based resources, is not a good indicator of whether the client can actually use them. Several respondents had a computer at home which was not connected to the Internet; others were online at home but it was another family member who was the Internet user; others were online but were very limited in their skills or liking of the Internet.

Problems associated with Internet use for those who do not have Internet at home, beside any lack of skills, were again not particularly age-related. They included:

(a) difficulties in conducting searches in the specific time-slots available at public libraries;
(b) difficulties in assembling the necessary information for filling in online questionnaires or application forms away from home.

12.3.1.4. *Collaboration between distance and face-to-face services*

This was not felt to be working well by advisers on either side. The face-to-face providers we spoke to did not rate distance advice highly enough to recommend it, and believed that learndirect does not refer people to them; the learndirect advisers felt frustrated by the restrictions of eligibility over the use of face-to-face services ([6]).

12.3.1.5. *Marketing ICT-based services to older users*

Marketing for learndirect telephone and web-based advice was not reaching older people as effectively as it might. Some were aware of the television commercials but either did not know what they were about or assumed

([6]) At the time of the study, this was restricted to people with existing qualifications below level 2, that is equivalent to school exams generally taken at age 16. This excluded people with older, out-of-date qualifications who needed new skills.

they were for younger people. Some told us they ignore all television advertising.

12.3.2. **Project B: career management skills**

12.3.2.1. *The nature of career management skills*

Career management skills have been identified as distinct from related skill sets such as employability skills: 'the focus of career management skills is upon competence in making and implementing decisions that determine one's career, while the focus of personal and employability skills is upon the competences used within the positions that one enters as a result of decisions and transitions' (Watts and Hawthorn, 1992).

Work has been undertaken in several countries in recent years to identify the career management skills needed by citizens to navigate their way within and around the workplace of the 21st century; these include Australia ([7]), Canada ([8]) and Ireland (National Guidance Forum, 2007). There is a general consensus that career management skills can be divided into three broad subsets:

(a) self-knowledge and personal management;
(b) learning and work exploration;
(c) skills for managing transitions and work-life balance.

The audio-recorded interviews for project B contained discursive narratives of people's past experiences within the workforce, work-related training and unemployment, their current concerns and their hopes (and fears) for the future. Issues of finance are a distinct, but highly varied, sub-theme within these accounts: for some, savings and property ownership give a degree of freedom and personal autonomy, whereas others are constrained by the limited levels and the qualification requirements of the state benefits system.

However, two themes are dominant: first, a diversity of situation and personal concerns that overrides any homogeneity that might be suggested by the 'accident' of age, but despite this, a general shift in the value systems that underpins engagement with the world of work.

Recent studies in the UK (Jones and Griffiths, 2007) and in New Zealand (Department of Labour, 2006) emphasise the diversity of characteristics of

([7]) *Australian blueprint for career development*. Available from Internet: http://www.cica.org.au/index.pl?page=69 [cited 27.8.2009].
([8]) *Blueprint for life/work designs*. Available from Internet: http://www.blueprint4life.ca/blueprint/home.cfm/lang/1 [cited 27.8.2009].

unemployed people in the 50-70 year age group. To age and gender are added:

(a) educational experiences, from the lowest to the highest level of qualification, and recent or long past experience of recognised learning activities;
(b) work history, from demanding and well-rewarded jobs, to marginal roles in the labour market;
(c) financial status, from anticipated security in retirement to reliance on state support.

In the UK, and for some other counties, there is additionally an ethnic mix which includes the considerable numbers of immigrants who have contributed to the workforce since the 1950s and 1960s, who are now reaching pensionable ages and questioning where 'home' is (Bheenuck, 2005).

Jones and Griffiths (2007) note that personal histories and experiences shape significantly the degree to which individuals are able to exercise choice and control over the manner and timing of their departure from work, and whether decisions to return to the labour force are being made out of necessity or choice. This, in turn, affects the motivation of people towards employment, training and voluntary work, and impacts on their approach to career management.

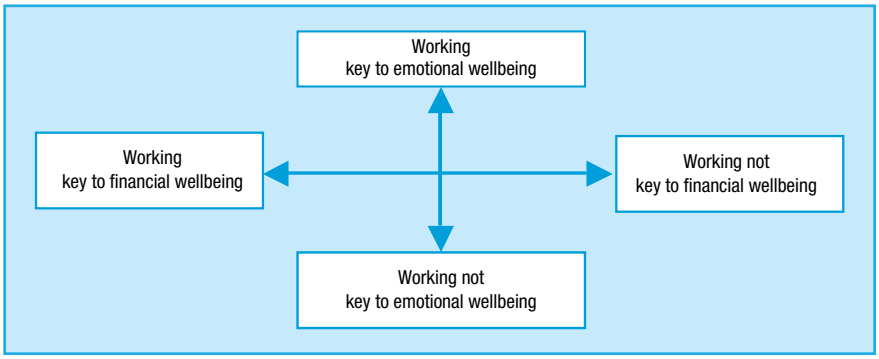
The issue of work motivation is developed extensively in New Zealand by the Department of Labour (2006) in a three-part study entitled *45 plus: choices in the labour market*. This study identifies that engagement, or otherwise, in the labour market is affected by the extent to which such activity is deemed to assist in the individual's emotional and financial wellbeing, leading to the schema in Figure 12:1.

This diversity of situation and experience is reflected in the 17 respondents to this study. Some had benefited from accessing higher education, among the early cohorts of those benefiting from the doubling of undergraduate student numbers in the UK in the 1960s. Others had left school at the (then) statutory minimum age of 15 years. Changes in the national economy, from manufacturing-led to service-led and information-led, cut across qualification distinctions, with both shop-floor and highly qualified workers losing employment as their sector declined. But 'new' industries often place a premium on youth and on recent qualifications. Respondents with decades of successful employment in graphic design and in IT attributed their difficulty in obtaining work that they knew to be well within their capability to such bias.

However, the difficulty in obtaining work was accompanied for many respondents by a shift in their personal values system that meant that they were not prepared

to grasp employment regardless of personal cost. Both the individuals and the career guidance practitioners in our sample recognised that ambition and 'striving' are largely replaced by a preference for settling in a comfort zone, a tendency which increases markedly as people progress towards and through their 60s (a comfort zone should not be equated with lack of activity; many people have busy and satisfying lives within their families and wider communities). Fundamental questions about identity are raised as people switch the balance of their attention away from job roles and towards their own needs, with the prospect of full retirement visible on the horizon. While work identity may typically have had greatest salience for men, it is also important for some women, especially those who gained much of their sense of identity through work.

Figure 12:1 **Engagement in the labour market**



Source: Department of Labour, 2006.

The values shift had several constituent parts: an increased focus on family, especially grandchildren; a feeling that people had made their contribution to society through years of hard work and now deserved an easier time; a growing awareness that time is not infinite, and that if other interests in life are to be satisfied, they cannot be neglected much longer; and, for some, a need to take greater care of themselves as signs of physical ageing started to be felt. The decrease in 'work centrality' is noted as typical of most men (estimated as six in seven) but, reflecting the diversity emphasised above, few men remain work-focused and ambitious to and past pensionable age (Clark, 2007). There is also evidence that women's and men's career concerns may shift in different directions, with some older women becoming more focused on their own capacity for independent action (Clark and Arnold, 2007).

Aspects of routine were greatly valued by many older people in our study, and some practitioners commented on older people's unwillingness to change

routines to adapt, for example, to the timetable of a learning opportunity, even when the routine under question was an apparently flexible one, such as shopping. This study raises questions about the extent to which routine and identity are interrelated. With the loss of the personal identity and descriptors that arise from work roles, some sense of security and belonging may be replaced through community activities, routines and familiar practices.

12.3.2.2. *Individual career management*

This individual diversity, accompanied by a general – if not universal – values-shift, has significant implications for career management skills, defined above as competence in making and carrying through decisions that determine one's career. Much that is written about personal career management skills assumes career growth and personal ambition, an agenda centred on 'getting on in life'. This is clearly the case in the Australian and Canadian 'blueprints' for career development (Section 12.3.2.1) where the oldest age-group addressed (stage 4 in the Canadian model) is adults in early- to mid-career, who are expected to be concerned with 'actualisation: striving towards full potential'. This is mirrored in much of the publicity and marketing used by career advisory services, addressing all adult age-groups and supporting national strategic aims to increase the skills within the workforce. Literature accessed during this study and the views of the respondents suggest that 'advancement' (the term currently intended for use in connection with the new UK adult careers service) is not their typical concern, although it remains a concern for an important minority. Rather, they are seeking ways to balance their need for income, their desire for a congenial way of life, an expectation of a certain respect for the skills and wisdom they have gained through life experiences (often not formally accredited) and a desire to be treated fairly.

Among respondents to this study, both older people themselves and their career practitioners are caught between a desire for good quality work opportunities and policy agendas which are broadly based on an assumption that culpability for unemployment rests with the individual. Respondents lamented the enormous pool of talent going to waste, in parallel with expressing fears of being bundled into uncongenial, low-pay, low-skill jobs in order to remove them from systems of State financial support, but placing individuals in a situation where they are financially no better off than on State support. On the evidence of this small sample, there is a greater need for policy pressure to be applied to employers than to older unemployed people.

Employers are seen, in general, as offering low levels of support to career management of their older workers. The organisations in the UK that adopt age-friendly policies are frequently cited, but few in number. Most employing

organisations make a disproportionately smaller investment in training for older people, a fact attributed by Ford (2005, p. 67) to the mistaken belief that they will offer a poor return on training in terms of job tenure, compared with younger employees. In fact, it appears that training which is targeted at older employees and is work-related suffers virtually no drop-out: Ford (2005, p. 75) quotes a BMW two-year mature apprenticeship. SEMTA (the UK's sector skills council for science, engineering and manufacturing technology) supported other schemes which had very low drop-out rates, contrasting with the loss of up to 40 % of young people on modern apprenticeships. Similar experiences with training are noted in relation to call-centre work and customer relations within retail.

This lack of investment in older people resonates with a suggestion arising during the study that employers are more likely to conduct a selection interview with a younger person against a broad canvas of how they might progress and contribute to the organisation over time. With an older worker (even with a decade and more of working life to come) they are more likely to interview for the specific post. This creates a mindset which limits the extent to which an older person can sell their all-round skills and the value of their life experience. If typical, this reinforces the view that, despite the UK's recent age discrimination legislation, subtle forms of discrimination remain.

Difficulties in 'selling themselves' to a potential employer are compounded by issues related to lack of formal qualifications, although it is acknowledged that qualifications are a poor measure for the actual skills of older workers (Leitch review of skills, 2006). Those with limited formal learning were aware that they had learnt. One commented: 'I must have learnt because I knew how to do things'. A pervasive issue in considering how to support people's career management skills is finding ways to help them understand, interpret and convey to others the skills and capabilities developed through life and work experience.

The literature review for this project found considerable interest in viewing retirement as a process over a period of years, rather than a simple event, moving the debate to 'how' to retire, rather than 'when' to retire. The emphasis is on individual choice, and support for that choice. Associated with this is clear evidence that those who have control over the retirement process have a more satisfactory older age. At least a third of older people want to retire gradually, but only 7 % currently do so (Yeandle, 2005). Concepts of helping their clients through a 'retirement zone' were also almost completely absent from our discussions with advisers, who referred to retirement as an 'event', and largely considered it in financial (pension income), rather than in lifestyle terms.

12.3.2.3. *How should career guidance services support older people?*
Career guidance services in the UK currently do some good work in supporting older people, but there are aspects of help needed by older people which are less well attended to. Strengths were typically in helping people to address the changed circumstances of job-search: assembling CVs and resumés, and accessing modern methods of finding vacancy information (addressed more fully in project A). Advisers were also typically helpful in encouraging people to consider learning opportunities, and in explaining how learning delivery had changed since the long-past experiences of those who had limited participation in learning throughout their adult lives.

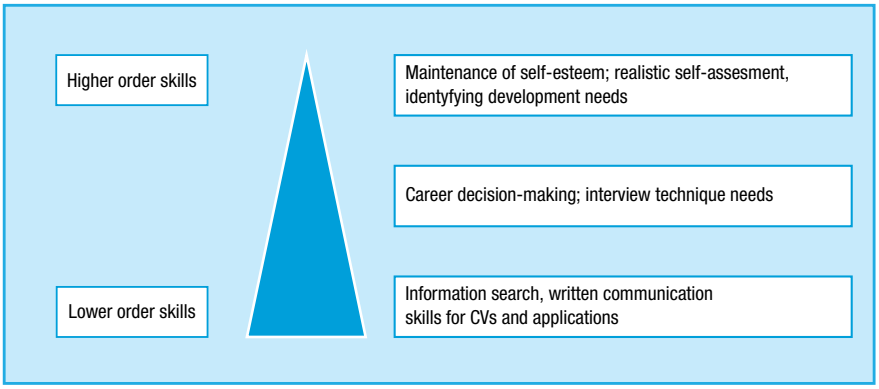
All advisers acknowledged that age-stereotyping gave rise to discriminatory practices. A key issue in combating stereotyping is identifying, valuing and conveying the applicability of transferable skills, particularly those that are not accredited. This is not an easy issue. A former manager who 'is used to being in control', may need to understand the potential impact on an employer and rephrase this as 'being used to being responsible'. The ubiquitous phrase 'I'm used to using my brain' may need to become more specific in terms of being a 'problem-solver'. There is a crucial career management skill at the communication interface between applicant and employer, in conveying the value to the organisation of life-wide skills in terms which show how they can add value to the organisation. A feeling of success in doing this can greatly enhance the confidence of the older job applicant, but advisers varied in how effectively they provided such support.

Few career advisers were well-attuned to the values-shift that characterises a significant proportion of older people and, within this study, none showed understanding of the long-term benefits to individuals of having control over their transition to retirement. This may have been better understood in the past, when the UK had many specialist 'third age' career advisory services, but funding changes mean that these have all but disappeared, and their staff expertise is dispersed. Advisers, many younger than their older clients, need confidence and skill to engage with the 'big questions' which underpin values-based career choice, and decisions about the part that learning and work (including voluntary work) play in people's lives. Staff would benefit from training which promotes understanding of the many differing and shifting characteristics and ambitions of older people, both within work and in voluntary, learning and leisure activity. Confidence to discuss types and typologies will enable staff to expand their discussions with older people to address life decisions more holistically.

It is clear from this study that higher order skills are needed by older people as they seek to navigate within, and eventually to exit appropriately from, the

modern workforce. Particular issues include the need to maintain self-esteem in the face of stereotyping, if not outright discrimination. Using their time and their available energies between work, social engagement and leisure requires self-understanding, and a willingness to challenge some of the pressures of the modern workplace, while seeking to maintain an appropriate place within it. Such skills are not uniquely required by older workers; many younger adults would seek to moderate the demands placed by employment and employers on their personal life-space. Addressing these issues with older workers may have the benefit of helping their career advisers to engage in similar support for those needing it across the working age-span.

Figure 12:2 . **A hierarchy of career management skills**



Source: Department of Labour, 2006.

12.4. Conclusions

12.4.1. Complementary findings

The findings of project A make it clear that adult careers advice should continue to be delivered through a face-to-face service as well as taking advantage of benefits that can be gained through the use of electronic media. Project B demonstrates that there are ways in which older people seek to manage their careers differently from younger people. While some of their needs can be met through the services (face-to-face and distance) that serve all adults, these differences suggest the need for some elements of special provision to meet the needs of older adults.

12.4.2. Special services or special staff?

There is no easy answer to this question. Special services for older people can create an environment in which they feel valued and at ease. Special services can give prominence to materials and ways of working that are particularly appreciated by older people, and can be staffed with people who are broadly matched to the age group of the users, and empathetic with their needs. Organisations offering career guidance for adults also often offer services which are ancillary to career guidance, such as learning provision and advice on welfare rights and benefits; these can be likewise targeted to the needs of older people.

Conversely, there are economies to be made by providing all-adult services. As well as infrastructure savings, some older adults will feel more comfortable in a setting which does not focus on the specificity of their age. As noted earlier, the diversity of the people in the older age group is of greater significance than the accident of their common age grouping.

What is clear is that services which want to address the needs of older adults effectively need to pay heed to the findings of both these projects. Whether delivery is then provided through a specialised service, or through a specialist team within an all-adult service, is a matter for national and local decision, as long as the following needs are considered.

12.4.3. Choice of media

Telephone advice services will be valued by some older people, but must offer to mail out paper-based back-up materials. Face-to-face services often provide Internet access and materials using new technologies on site. Where this is so, they should offer support to all their users, whether or not over 50, in the use of telephones and computer applications. Checking that a client 'has access to a computer' is not enough to ascertain that they can use ICT. This help should be given by staff that are trained, friendly and sympathetic to the needs of target groups.

12.4.4. Staffing

A service that is to attract and provide effective help to older users should have at least some older advisers. They serve as role models as well as service providers. An all-age service should consider developing specialist staff, both as experts in working directly with the older client group and with a brief to maintain the expertise of colleagues in work with older adults.

12.4.5. Training

Training on the issues concerning older people should form a regular part of professional development for staff in all services, specialist or all-adult, face-to-face or distance. The breadth of the training needed is considerable. It should address the practicalities of types of information and suitable methods of delivery, as well as broad understanding of life-stages and processes of moving from the workforce to active retirement, including learning and voluntary work. Advisers need to span from specific information and practical help in job-seeking through to discussion of shifting values, hopes and fears for the future. This training is discussed in more detail in both final project reports (Hawthorn, 2008b; Barham, 2008), and should be supported by systems of management and peer support for those undertaking work which may at times be challenging.

12.4.6. Marketing

Publicity materials should make it absolutely clear that the service welcomes older users. In terms of marketing media, our respondents suggested that there are other ways to reach more older adults than just unambiguous television advertisements. They suggested local newspapers and radio; notices in libraries and on other notice boards in places they tended to go such as coffee shops, residential centres or Jobcentre Plus (the UK public employment service); and letters or leaflets through the door. The content of publicity materials needs to resonate with the concerns of older people. It needs to make clear that help covers a considerable diversity of needs: career advancement where this is sought; balancing work with other interests where this is desired; planning for gradual workplace disengagement as appropriate.

12.4.7. Meeting future needs

These studies address the UK situation, where, as with many other countries, demographic changes are leading to later entitlement to pensions. Progressively, State pension ages in the UK will be equalised by raising the age for women to 65 years by 2020, and then raising the age for both sexes to 68 over the following decades. While this will compel some people to work longer, others will wish to do so for social or financial reasons. Active engagement should be encouraged, as it is correlated with better outcomes for the individual in older age as well as contributing to national economic needs. High quality career guidance is as important for this part of the population as it is for those just embarking on their working lives. The argument is cogently

stated by the OECD (2004) in a review of policy on career guidance: 'policy responses to ageing societies in most OECD countries have, to date, largely focused upon reforms to retirement age provision and reformed income support arrangements. There are strong arguments for public policy seeking stronger links between these reforms and the availability of career guidance to help people to create more flexible transitions to retirement. In particular, a much closer integration between financial planning and career guidance, as well as overall retirement planning, could assist people to put together more flexible mixes of temporary employment, part-time work, and self-employment during the transition to retirement' (OECD, 2004, p. 68).

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13. Keeping older workers committed and employed through formal and informal HRD initiatives

Ida Wognum and Martine Horstink

ABSTRACT

Human resources development (HRD) initiatives are often targeted towards increasing employee organisational commitment. This specifically holds for more informal practices of learning and development, although most learning situations encompass both formal and informal elements. In this chapter a negative relationship is hypothesised between the formality level of HRD initiatives and employee commitment meaning that a higher level of formality is expected to lead to a lower level of organisational commitment. It is also hypothesised that this relationship is stronger for older workers. Although the findings do not support both hypotheses, the results are interesting. For instance, older workers having learned more formally through a new task, job or project, show significantly more continuous organisational commitment. This finding offers the opportunity to arrange new learning and development initiatives to improve older workers' organisational commitment and prevent them from exiting the labour market early to retire. It also adds new insights to the public debate in which older workers' knowledge development has often been narrowed to formal training.

13.1. Introduction

Rapid developments are taking place within society and organisations. They demand a flexible, responsive and competent workforce. One of the most urgent issues in this respect is the impact of the world's population ageing on employment and the labour market. Several studies show that the number of people aged 60 and over is growing faster than all other age groups (ILO, 2002; SER, 2005; McGoldrick et al., 2008). The demographic shift towards old age means that there will be an increasing shortfall in young workers and that companies will have to rely on older workers to meet skill demands. They need growing participation by senior people and are forced to retain their older workers longer to make use of

their rich expertise. Therefore, it is crucial that action is taken to encourage older people to play a productive role in our economy as long as possible (McGoldrick et al., 2008). In this respect organisational commitment by employees plays an important role, as highly committed employees are less likely to leave the company (Goslinga, 2001; Meyer and Allen, 1991). Empirical evidence suggests that, in fact, the likelihood of leaving an organisation decreases as commitment increases (Meyer and Allen, 1991; Batt, 2002).

Section 13.2 examines the concept of organisational commitment. Section 13.3 deals with a hypothesised relationship between organisational commitment and the formality level of learning and development. In Section 13.4, this relationship is further explained with respect to older workers. In Section 13.5, the research method is described, while in Section 13.6 the results of this study are presented. In Section 13.7, conclusions are drawn from these findings, which are discussed in Section 13.8 and lead to some suggestions for further research.

13.2. Organisational commitment

Organisational commitment is a psychological state that characterises an employee's relationship with the organisation. It has implications for the decision to continue or discontinue membership in the organisation (Meyer and Allen, 1991). Meyer and Allen (1991) include three facets of organisational commitment: affective commitment defined as an emotional attachment to an organisation characterised by acceptance of organisational values and by the willingness to remain with the organisation; continuous commitment which reflects a need to remain, and results from the awareness of the costs associated with leaving the organisation; and normative commitment which results from internalisation of a loyalty norm and is defined as a perceived duty to support the organisation and its activities. Normative commitment reflects employee feelings that they ought to remain with the organisation (see also Somers, 1995). As stated by Meyer and Allen (1991, p. 73), the binding to an organisation is the common denominator in all three conceptualisations of commitment. If reduction of commitment is the only concern of researchers or managers, the differences among the various conceptualisations become somewhat irrelevant and one form of commitment may be as good as another. The likelihood of leaving the organisation decreases as any one of the three components increases in strength, although the effects of the three components on on-the-job behaviour might be different.

13.3. Formality of learning and development

According to Ichniowsky et al. (1997) and Batt (2002) human resources practices may increase employee commitment and lower quit rates. Various studies have provided empirical evidence on the positive relationship between learning and development, or human resource development (HRD) and employee commitment (such as Meyer and Smith, 2000; Benson, 2006) and a lower intention to leave (Maurer et al., 2003). Bartlett (2001) for instance found a positive relationship between the number of training events and affective commitment, and Birdie et al. (1997) demonstrated a positive relationship between organisational commitment and training time spent in different categories of development. Benson (2006) studied the relationship between organisational commitment and employee development activities such as company classes and on-the-job training and found mixed support for the hypothesis that participation in this type of development is positively related to commitment. Only the number of days spent in on-the-job training over the past year was significantly related to organisational commitment, while company classes were not. This former type of learning and development probably is much more firm-specific than the latter one. Lynch (1991) found that workers who have attended some form of firm-specific on-the-job training were less likely to leave their employer, while those who participated in some form of more general off-the-job training were more likely to leave. Garavan et al. (2002) found a paradigm shift from formalised and discontinuous learning to increasingly informal and real-time situated learning.

From these results it could be hypothesised that this shift to a more informal way of learning and development will lead to a higher level of employee organisational commitment. A core problem, however, is that the relevant literature shows a complete lack of agreement about what formal, non-formal and informal ways of learning are, or what the boundaries between them might be (Kwakman, 1992; Malcolm et al., 2003). Colley et al. (2003) concluded that all, or almost all, learning situations hold attributes of formality and informality. Formal, informal, and non-formal learning are not discrete categories, and to think that they are is to misunderstand the nature of learning. They grouped the attributes of learning into four aspects: location/setting, process, purpose, and content. This categorisation makes it easier to analyse learning in diverse situations, and to recognise changes to learning if the balance between attributes of formality and informality shifts. Other authors point to this continuum of formal and informal learning aspects as well (Simons, 1995; Boekaerts and Minnaert, 1999; Stern and Sommerlad, 1999). They point to an 'HRD intervention's level of formality' implying that each

HRD initiative is formal or informal to a more or lesser degree and assigning a high level of formality referring to an averagely formal intervention, and a low level of formality to an averagely informal HRD intervention (de Bruin, 2007). It then could be hypothesised that a higher level of formality of HRD interventions will lead to a lower level of organisational commitment.

Hypothesis 1: the level of formality of learning and development activities negatively correlates with employee's organisational commitment, the higher the formality level the lower organisational commitment (H1 in Figure 13:1).

13.4. Older workers' learning and development and their organisational commitment

In many organisations, all workers are increasingly being called on to be involved in learning and development activities to prevent skill shortages and to improve their commitment to the organisation they work for. Various studies reveal that participation by older people in formal learning and development declines with age and that older workers remain underrepresented in most forms of training and education (Maurer et al., 2003). Young adults in the 25-34 age group are almost twice as likely to undergo training as older people aged 54-64 (ILO, 2002), and investing in learning and development is mostly focused on employees with a maximum of two years service in the company (TNS/NIPO, 2008), which in most cases are the younger employees.

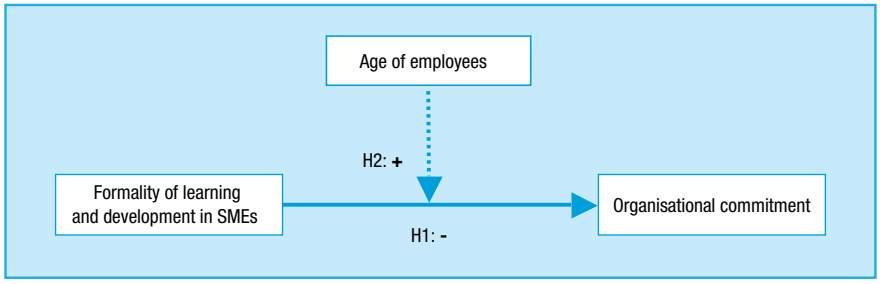
One reason for the underrepresentation of older workers and for the lower degree of support and encouragement they receive from supervisors and other people at work when engaging in learning and development (Maurer et al., 2003) may be the unfounded stereotyping of these employees: they are seen as less mobile and flexible than their younger counterparts, less able to deal with rapid changes occurring in organisations and less productive (Dorhout et al., 2002; Van Dalen et al., 2007). Age discrimination underlies many of the difficulties faced by older workers in the labour market. However, no empirical evidence exists for this preconception towards the abilities of older workers (ILO, 2002). On the contrary, it could be stated that older workers can be more innovative and productive because they are more independent and experienced than younger ones (Opinion Leader Research, 2004). Older employees also show significantly more organisational commitment (Bartlett, 1991; Meyer at al., 1993) although this relationship is weak for affective commitment (Mathieu and Zajac, 1990). Age seems to be particularly related to normative and continuous commitment.

Due to their lower participation in training activities, older employees face problems with career prospects as compared to younger employees (Thijssen, 1996). These employability problems usually increase with the years, resulting in many older workers taking early retirement or spending several years on incapacity before retiring (McGoldrick et al., 2008). The question remains how to ensure that older workers are not neglected in learning and development to keep them employable and committed to their work and organisation. This could be done by providing learning opportunities that are more 'older worker friendly' (Walker, 2005), for instance by tailoring them to the preferred learning styles of older workers and to their motivation to attend courses (Rhebergen and Wognum, 1997). Older workers prefer to learn work-based and by means of new experiences, and they consider attractive learning situation-related conditions very important (Thijssen, 1996). Learning by doing, learning on the job and individual coaching are perceived as being far more relevant than formal training and courses. Garavan et al. (2002) assert that a more informal way of learning and development will positively impact on organisational commitment. This is unlike the definition in the managerial literature (Garavan et al, 2002) and in public debate (Van Dalen et al., 2007) where HRD is generally defined as a set of formal practices of learning and development. Therefore, age could be hypothesised as a moderating variable in the relationship between the formality level of learning and development activities and employee organisational commitment.

A second hypothesis suggests that the negative correlation between the formality of learning and development activities and organisational commitment is stronger for older workers than for their younger colleagues (H2 in Figure 13:1).

Below both hypotheses are visualised.

Figure 13:1 **Overview of the hypotheses addressed in this chapter**



Source: Department of Labour, 2006.

13.5. Method

13.5.1. Sample

HRD has traditionally focused on large organisations, despite the prevalence of small businesses in today's economy. The notion of an HRD intervention's level of formality is, however, important for HRD practices in both small and larger companies, as both types of organisation face a greying workforce. In fact, small and medium-sized companies (SMEs) form the backbone of most European countries; 99 % of companies have less then 250 employees (European Commission, 2003) and a large percentage of the SME workforce is preparing for retirement. SMEs are thus more vulnerable to the demographic shift towards old age and keeping their older workers employed and committed is of specific importance for them. Apart from this, the study on learning and development in larger companies is often connected with formal HRD initiatives, while SMEs tend to favour informal learning and development (Wognum and Bartlett, 2002). Larger companies can devote more time and resources to implementing formal initiatives (Beaver and Hutchings, 2005).

A medium-sized company was selected for this study from an Association of Chambers of Commerce database of all Dutch companies in the metal sector with 250 employees or less. The metal sector was selected because of a foreseen shortage of employees due to a declining supply of students graduating from technical studies. Retaining older workers is, therefore, of importance for this sector to meet actual and future needs for sufficiently skilled employees. The selected employee size was based on the frequently used definition of organisational size in SMEs (MKB-Nederland, 2006). The firms on this list were randomly asked by phone for their willingness to participate. This resulted in the selection of a medium-sized metal company in the Netherlands with 165 employees, which was the first company that reacted positively.

13.5.2. Data collection

Data were gathered in December 2007 and January 2008 through an online questionnaire sent to all 105 employees who had an e-mail address (response rate 66 %), and a written questionnaire for the 60 employees who did not have a computer at their disposal (response rate 17 %). The overall response rate was 48 % (n=79) of which 87 % completed the online questionnaire. Both questionnaires contained the same questions distributed over three parts. Part one concerned background questions on age, contract of employment regarding tenure, and number of working hours per week. Part two contained

questions on the level of formality of various learning and development, or HRD activities – also referred to as learning initiatives, interventions or events – in which employees participated in the year preceding data collection. A number of possible interventions were presented, based on Wognum and Bartlett (2002) who distinguished seven categories of more or less structured and formalised learning events. Per category respondents were asked to indicate if they experienced this in the previous year. In case of a positive reply respondents had to write down a concrete example. Formal and informal aspects of each example were examined to measure the formality level, by asking respondents to score each applicable learning event on eight pairs of propositions derived from the attributes of Colley et al. (2003): three for the process attribute, two for location/setting, two for purposes, and one for content. An example of a pair of propositions for the process attribute is 'I could design my own learning process', which characterises an informal learning event, versus 'my learning process was strongly controlled by a trainer/teacher' which expresses a formal way of learning. An example for the purposes attribute is 'I could define my own learning goals during the learning event' as opposed to 'the learning goals were defined preceding the learning event'. Respondents could score on a Likert scale with five possible answers placed in between each pair of propositions, the most informal proposition at the left side and the most formal at the right side. Part three of the survey contained questions from a Dutch version of the commitment questionnaire of Allen and Meyer (in de Gilder et al., 1997). The questionnaire, used with permission of the Dutch researchers, comprises 24 items, eight for each commitment subscales: affective commitment (ACS), continuous commitment (CCS), and normative commitment (NCS). Each proposition could be answered on a five-point scale, running from 1 (completely disagree) to 5 (completely agree). After having deleted one item for each subscale, Cronbach's alpha for the entire commitment scale was .87, for ACS .83, CCS .87 and NCS .73.

13.5.3. **Data analysis**

Descriptive analysis is used to describe the respondents and the variables on learning and development, commitment and formality used in the study. The mean level of formality is calculated by totalling the scores on each pair of propositions and dividing that through the number of propositions for each learning event. Cronbach's alpha ranges from .49 for the formality level of an external training/course, to .79 for the formality level of self-education/ reading relevant literature as learning event. Because the formality scale

holds less than 10 items, an alpha coefficient of .50 is acceptable (Pallant, 2001) implying that all formality scales are internally consistent except for the scale on external training/courses. A correlation analysis explores the relation between all variables. Hypotheses were tested by means of bivariate correlation analysis and hierarchical regression analysis.

13.6. Results

13.6.1. Background information

A preliminary analysis of the data shows that of all 79 respondents 95 % (n=75) are male. The age of all respondents is 43.8 years on average (SD=10.66). Of them 30 % belong to the youngest group of employees aged up to 35, 47 % are part of the group aged 35 to 55, and 23 % of respondents are older then 55 years. A chi-square goodness of fit test showed age as normally distributed (p=.94). More than half of respondents (52 %) have been employed in the firm for more than five years, 28 % between one and five years tenure, and 20 % for less than one year. Most respondents (87 %) hold a permanent contract, while 8 % have a temporary employment contract and 5 % are engaged through an external organisation. Of all respondents 95 % have a contract for more than 30 hours per week, while the remaining 5 % are employed for 20 to 30 hours per week. The sample group of respondents well represents the population of all employees of the selected firm, with regard to age, gender and employment.

13.6.2. Formality of learning and development

Table 13:1 presents data on the actual participation of all respondents in courses and other learning and development activities in the year preceding data collection. Data show that 54.5 % of respondents acquired new knowledge or skills through attending formal and external training courses, 54.4 % learned via self-education or reading professional literature, while 51.9 % learned through feedback from colleagues or their supervisor.

Learning while performing a new task, job or project was indicated by 36.7 % of respondents, and learning through networking and contacts with external people, and by means of training on-the-job was mentioned by 35.4 % and 26.6 % respectively. Only 8.9 % of respondents acquired new knowledge and skills from a coach or mentor. It was found that, on average, respondents learned by participating in three out of seven activities of learning and development.

Table 13:1 **Percentage of respondents having experienced an activity of learning and development in the year preceding the data gathering, and the mean formality level, standard deviation and Cronbach's alpha per activity**

Learning and development activity	Percentage of respondents	Mean formality score (a)	Standard deviation (SD)	Cronbach's alpha
External training course	54.5	3.68	.58	.49
Training on-the-job	26.6	3.10	.76	.59
Mentor or coach	8.9	2.66	.34	.75
New task, job or project	36.7	1.78	.52	.67
Feedback from colleagues or supervisor	51.9	1.95	.51	.57
Self-education or reading professional literature	54.4	1.99	.82	.79
Networking/contacting external people	35.4	1.67	.54	.72
Overall level of formality (b)		2.43	.64	

NB: n=79
(a) The five-point formality scale runs from 1 (most informal) to 5 (most formal).
(b) The variable 'overall level of formality' concerns the formality level of all learning and development activities, based on the average formality scores.

Data in Table 13:1 also show the overall level of formality of all seven learning and development activities as measured on a five-point scale running from 1 (most informal level) to 5 (most formal level). The overall score of M=2.43 (SD=.64) indicates that indicated learning events are, on average, more informal than formal. External training courses and training-on-the-job are the learning initiatives with the highest level of formality, M=3.67 (SD=.58) and M=3.10 (SD=.76) respectively. A one-sample t-test found these scores significantly higher, and thus more formal than the overall formality score ($t(42)=14.21$, $p<.001$, and $t(20)=4.04$, $p<.01$, respectively). The other activities are, on average, more informal, with 'networking/contacting external people' and 'learning through performing a new task, job or project' as the most informal ones (M=1.67 and 1.78, and SD=.54 and .52 respectively). A one-sample t-test showed 'feedback from colleagues or supervisor' ($t(40)=6.01$, $p<.001$), 'self-education or reading professional literature' ($t(42)=3.55$, $p<.01$), 'new task, job or project' ($t(28)=6.73$, $p<.001$) and 'networking/contacting external people ($t(27)=7.39$, $p<.001$) as learning events that score significantly lower and thus more informal than the overall score for level of formality.

13.6.3. Commitment

Table 13:2 presents data on respondents' affective, continuous and normative commitment to the organisation they work for. Commitment is measured on a five-point scale running from 1 (very low commitment) to 5 (very high commitment).

The data show a moderate overall commitment (M=3.09; SD=.52). Affective commitment of respondents (M=.83; SD=.58), indicating their willingness to remain with the company, is significantly higher than overall commitment (one-sample t-test, t(78)=7.36, p<.001). In contrast, continuous commitment (M=2.69; SD=.91), indicating a need to remain with the company, is significantly lower than overall commitment (t(78)=3.90, p<.001).

Table 13:2 **Affective, continuous and normative commitment: number of items, Cronbach's alpha, means and standard deviations**

Commitment scale [a]	Number of items	Cronbach's alpha [b]	Mean (M) [c]	Standard deviation (SD)
ACS	7	.83	3.57	.58
CCS	7	.87	2.69	.91
NCS	7	.73	3.01	.56
Overall commitment	21	.87	3.09	.52

[a] ACS = affective commitment scale, CCS = continuous commitment scale, NCS = normative commitment scale.
[b] Cronbach's alpha after deletion of one item of each commitment scale.
[c] Commitment is measured on a five-point scale running from 1 (very low commitment) to 5 (very high commitment).

13.6.4. Correlations

Table 13:3 presents the results of a Spearman correlation analysis. Data show a significant and positive correlation between gender and the number of working hours per week (r=.74, p<.01) and a significant negative correlation between gender and the number of learning activities. The four female respondents more often work part-time and participate in fewer learning activities. No significant correlation was found with commitment. The data also show a significant and positive correlation between age and tenure (r=.53, p<.01), continuous commitment (r=.48, p<.01), and overall commitment (r=.37, p<.01). The older the respondents the longer they are employed in the company and the more they are committed to the organisation they work for. Tenure is significantly and positively correlated with overall commitment (r=.40, p<.01) and with continuous commitment (r=.39, p<.01). If respondents are employed for a longer period of time, they become more committed to the organisation and increasingly feel the need to remain with the organisation because of the costs associated with leaving. Tenure is also significantly but negatively related to the number of learning activities, meaning that the longer is the period of employment, the fewer learning activities respondents are involved in. This negative

Table 13:3 **Correlations**

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1. Gender															
2. Age	-.05														
3. Tenure	-.05	.53**													
4. Number of working hours per week	-.74**	-.01	.05												
5. Number of learning activities	-.34**	-.49**	-.32**	.29*											
6. External training course	-.26*	-.25*	.16	.14	.53**										
7. Training-on-the-job	-.14	-.27*	-.17	.14	.53**	.20									
8. Mentor or coach	-.07	-.28*	-.32**	.07	.33**	.19	.32**								
9. New task, job or project	-.18	-.38**	-.18	.18	.50**	.11	.20	.04							
10. Feedback from colleagues or supervisor	-.24*	-.27*	-.33**	.24*	.56**	.12	.24*	.21	.05						
11. Self-education or reading literature	-.25*	-.26*	-.28*	.14	.65**	.22	.03	.02	.28*	.24*					
12. Networking/contacting external people	-.17	-.15	-.17	.17	.62**	.14	.15	-.05	.15	.24*	.52**				
13. Affective commitment	-.06	.14	.20	.08	-.04	.10	.10	.06	-.07	-.06	-.18	-.01			
14. Continuous commitment	-.01	.48**	.39**	.03	-.33**	-.02	-.05	-.09	-.24*	-.13	-.35**	-.29*	.34**		
15. Normative commitment	-.09	.01	.21	.07	.02	.12	.05	.12	-.04	-.07	-.07	.03	.57**	.31**	
16. Overall commitment	-.12	.37**	.40**	.13	-.17	.08	.03	-.01	-.15	-.12	-.24*	-.13	.72**	.81**	.71**

* Spearman's rho correlation coefficient significant at p<.05.
** Spearman's rho correlation coefficient significant at p<.01.

correlation is especially pronounced for the learning events 'feedback from colleagues or supervisor' (r=.33, p<.01, 'mentor or coach' (r=.32, p<.01), and 'self-education or reading professional literature' (r=.28, p<.05). The number of working hours per week correlates significantly and positively with the number of learning activities (r=.29, p<.05) and with 'feedback from colleagues or supervisor' (r=.24, p<.05). Data also show a significant and negative correlation between age and number of learning activities (r=.49, p<.01). This goes for six out of seven discerned learning activities, except for 'networking/contacting external people' (r=.15, p>.01). Significant and positive correlations were also found between some kinds of learning activities, for example 'feedback from colleagues or supervisor' positively correlates with 'self-education or reading professional literature' (r=.24, p<.05), 'training-on-the-job' (r=.24, p<.05), and 'networking/contacting external people' (r=.24, p<.05). A significant and positive correlation was also found between the learning activities 'mentor or coach' and 'training-on-the-job' (r=.32, p<.01). Some significant correlations were found between various learning activities and the discerned commitment scales. For instance, learning 'new skills by means of self-education or reading professional literature' is negatively correlated with continuous commitment (r=.35, p<.01) and with the overall commitment scale (r=.24, p<.05). Continuous commitment is significantly and negatively correlated with learning through a 'new task, job or project'

(r=.24, p<.05), 'networking/contacting external people' (r= 28, p<.05), and with the overall number of learning activities (r=.33, p<.01).

13.6.5. Differences between age groups for learning activities, commitment, and formality level

One-way Anova tests were performed to examine whether various age groups differ concerning the learning and development event they experienced and their organisational commitment. Three age groups were used for this analysis: the group of respondents aged up to 35 (n=24), the employees aged between 35 and 55 (n=37), and the respondents aged 55 and older (n=18). For normative and affective commitment, no significant correlation differences between age groups were found, F(2.76)=1.07, p>.05) and F(2.76)=1.34, p>.05 respectively. But significant differences were found for continuous commitment (F(2.76)=6.50, p<.01). A Bonferroni test showed that respondents aged to 35 report a significantly lower continuous commitment (M=2.12, SD=.49) than the group of respondents aged between 35 and 55 (M=2.88, SD=1.97), and the group aged 55 and older (M=2.93, SD=1.05). The costs associated with leaving the company thus play a more substantial role at higher age.

Because age significantly correlates with the number of learning activities that respondents have experienced in the year preceding data collection, a one-way Anova was carried out to uncover possible differences between the three age groups. Data show significant differences in this respect (F(2.76)=4.99, p<.01). A Bonferroni test showed respondents aged up to 35 having experienced significantly more learning activities (M=3.67, SD=1.53) than their colleagues aged between 35 and 55 (M=2.39, SD=1.79), and above 55 (M=2.23, SD=1.60). Alongside this it was investigated whether differences between age groups could be found in terms of their engagement in specific learning activities. Table 13:4 reports percentages of respondents for each learning activity, distinguished by age group. The data reveal that respondents mostly learn from external training courses, feedback from colleagues or supervisor, and self-education or reading professional literature. Significant differences between age groups were found for two specific learning activities: 'mentor or coach' (F(2.76)=4.26, p<.05), and 'training on-the-job' (F(2.76)=5.36, p<.01). Respondents aged up to 35 are significantly more engaged in learning by means of training on-the-job (52.4 %) than their colleagues aged between 35 and 55 (16.7 %) and above 55 (18.2 %).

Younger respondents also learn significantly more often from a mentor or coach (23.8 %) than their colleagues aged between 35 and 55 (2.8 %) and

Table 13:4 **Percentage of respondents for specific learning and development activity, divided by age group**

Learning and development activity	Age group		
	<35 years	35-55 years	>55 years
External training course	76.2	41.7	54.5
Training-on-the-job *	52.4	16.7	18.2
Mentor or coach *	23.8	2.8	4.5
New task, job or project	47.6	38.9	22.7
Feedback from colleagues or supervisor	71.4	47.2	40.9
Self-education or reading professional literature	61.9	52.8	50.0
Networking/contacting external people	33.3	38.9	31.8

NB: n=79
* significant differences between age groups.

above 55 (4.5 %). Differences between age groups for attending external training courses were found close to significance ($F(2.76)=3.07$, $p=.05$). One-way Anova tests were also performed to find out whether age groups differ concerning the formality level of the learning and development activities they were engaged in. This only applies to the learning event 'external training course' ($F(2.76)=8.22$, $p<.01$). Respondents aged between 35 and 55 rated these training courses significantly more formal ($M=4.06$, $SD=.58$) compared to their younger ($M=3.63$, $SD=.46$) and their older ($M=3.38$, $SD=.43$) colleagues.

13.6.6. Differences between the online and paper questionnaire

Data were gathered through an online questionnaire sent to all 105 employees with an e-mail address and using a written questionnaire for the remaining 60 employees who do not have computer access. The overall response rate is 48 % (n=79) of which 87 % completed the digital questionnaire. One-way Anova tests were done to explore possible differences between both groups of respondents. No significant differences were found for age. Both groups, however, differ significantly regarding their continuous commitment ($F(1.77)=4.18$, $p<.05$). The continuous commitment of respondents who completed the paper version of the questionnaire ($M=3.23$, $SD=.89$) is significantly higher than the commitment of respondents who completed the online version ($M=2.61$, $SD=.89$). This also goes for the average level of formality of learning events ($F(1.77)=6.32$, $p<.05$). For the paper version the formality level is significantly higher than for the online version ($M=2.94$, $SD=.73$ and $M=2.36$, $SD=.73$ respectively). Alongside this it was found that respondents who completed the online version significantly more often

learned by means of self-education or reading professional literature than respondents who filled in the paper version ($F(1.77)=5.73$, $p<.05$).

13.6.7. Correlation between formality level and organisational commitment

The first hypothesis proposes a negative correlation between the level of formality of learning and development activities and employee organisational commitment, i.e. the higher the formality level the lower organisational commitment. This hypothesis was tested by means of bivariate correlation analysis. A correlation between the overall mean formality score and the mean formality scores of each specific learning activity with affective, continuous and normative commitment could be calculated. Table 13:5 reports the results of this analysis. It was found that the overall mean formality does not significantly correlate with any of the commitment scales. For the mean formality of each specific learning activity, just three significant correlations with commitment were found. One concerns a significant and positive correlation between the formality of learning by a mentor or coach and normative commitment ($r=.79$, $p<.05$). A more formal way of learning by a mentor or coach relates to a higher level of normative commitment. The other two significant results concern a positive correlation between the formality of learning from a new task, job or project with continuous commitment ($r=.45$, $p<.05$) and with overall organisational commitment ($r=.46$, $p<.05$). Instead of the expected negative correlation between the level of formality of learning and development activities and employee organisational commitment, three positive correlations were found indicating a higher level of commitment where learning and development activities are more formal. This applies to

Table 13:5 **Bivariate correlation analysis – Formality and commitment**

	ACS	CCS	NCS	Overall commitment
Formality of external training course	.08	-.14	.13	-.01
Formality of training-on-the-job	.11	.02	.14	.05
Formality of mentor or coach	.34	.07	.79*	.33
Formality of new task, job or project	.25	.45*	.10	.46*
Formality of feedback from colleagues or supervisor	.25	.12	.25	.21
Formality of self-education or reading professional literature	-.14	-.18	.02	-.15
Formality of networking/contacting external people	.05	-.11	.09	-.09
Overall level of formality	.20	.17	.19	.21

NB: ACS = affective commitment scale, CCS = continuous commitment scale, NCS = normative commitment scale.
* Spearman's rho correlation coefficient significant at $p<.05$.

normative commitment and learning by a mentor or coach, for continuous commitment as well as overall commitment, and learning from a new task, job or project. Therefore, the first hypothesis should be rejected.

The second hypothesis proposes that the negative correlation between the level of formality of learning and development events and employees' organisational commitment will be stronger for older workers than for their younger colleagues. Although a negative correlation was not found, hierarchical regression analyses were performed to explore for a negative relationship between the overall mean formality score and organisational commitment if moderated by age. Regression results testing hypothesis 2 are reported in Table 13:6. In model 1, regressions are presented in which overall organisational commitment, affective commitment, continuous commitment, and normative commitment are explained by the overall level of formality. It was found that only for overall organisational commitment was this regression significant and that the overall level of formality of learning activities explains a significant part of the variance in overall organisational commitment (β=.27, p<.05). In model 2, the regression results for overall organisational commitment, affective commitment, continuous commitment, and normative commitment are presented as explained by age. Data show that age only explains a significant part of the variance in overall organisational commitment (β=.37, p<.01). However, the interaction between age and overall

Table 13:6 **Results of regression analysis of overall level of formality of learning and development activities and age resulting in the commitment scales**

Variables		Model 1 (β)	Model 2 (β)	Model 3 (β)
Overall commitment	Overall formality	.27 *	.26 *	.30
	Age		.37 **	.39
	Overall formality * age			-.04
Affective commitment scale	Overall formality	.19	.19	1.19
	Age		.17	1.03
	Overall formality * age			-1.34
Continuous commitment scale	Overall formality	.21	.21	-.11
	Age		.50 **	.23
	Overall formality * age			.42
Normative commitment scale	Overall formality	.22	.22	-.23
	Age		.04	-.35
	Overall formality * age			.60

NB: Overall formality = the overall level of formality of all learning and development activities.
* p<.05.
** p<.01.

level of formality (model 3) is not significant, which implies that age is not a moderator in the relationship between overall level of formality and overall organisational commitment. Interactions between age and affective and normative commitment did not lead to significant regression results either. Only for continuous commitment does the regression analysis (model 2) indicate age as explaining a significant part of the variance (β=.50, $p<.01$). However, the interaction between age and overall level of formality (model 3) is not significant. Therefore, hypothesis 2 should be rejected as well.

Further analysis was undertaken to explore age as a possible moderator variable. Earlier results showed significant and positive correlations between the formality of learning by mentor or coach and normative commitment, and between continuous commitment and the formality of learning by a new task, job or project. It was found that formality of the learning event 'mentor or coach' positively correlates with normative commitment (β=.45, $p<.05$). After including the age variable in the regression analysis, and analysing the interaction of both variables, no significant results were found (β=.50, n.s.; and β=-2.14, n.s. respectively) which means that age does not moderate the relationship between the formality of learning by a mentor or coach and normative commitment. The analysis also shows that the formality of learning by a new task, job or project significantly and positively correlates with continuous commitment (β=.45, $p<.05$).

After having included age as an explanatory variable in the regression analysis no significant result is found (β=.22, n.s.). But including the interaction of age and formality of learning by a new task, job or project yields a significant and positive result (β=1.79, $p<.05$). This means that age moderates the relationship between the formality of learning by a new task, job or project and continuous commitment. Further analysis showed this relationship as being stronger for respondents aged above 55 (β=.91, $p<.05$), than for respondents aged between 35 and 55 (β=.42, n.s.), and below 35 (β=.91, n.s.).

13.7. Conclusions

The study presented in this chapter examined the relationship between the formality level of HRD initiatives and employees' organisational commitment in a medium-sized metal company in the Netherlands. With rapid population ageing, organisational commitment of employees plays an important role, as highly committed employees are less likely to leave the company to retire. HRD initiatives are expected to increase employee commitment and to lower quit

rates. This specifically seems to hold for more informal practices of learning and development. Larger companies have more time and resources for formal kinds of HRD initiatives, while SMEs tend to favour informal learning and development activities. But almost all learning situations hold attributes of formality and informality, implying that each HRD initiative is formal or informal to a certain degree. In this study a negative relationship is hypothesised between the formality level of HRD initiatives and employee commitment, meaning that a higher level of formality will lead to a lower level of organisational commitment. It is also hypothesised that this relationship is stronger for older workers than for their younger colleagues. Older employees are less inclined to leave the company when they are engaged in learning and development events tailored to their preferred learning styles. They prefer to learn on-the-job more informally and to learn by means of new experiences.

The findings in this chapter do not support the hypotheses. Nevertheless, some interesting results were found. The learning and development events in the company studied were, on average, more informal than formal, which supports the often found result that SMEs tend to favour informal learning and development. The three most frequently experienced learning events for young and older employees were 'self-education or reading professional literature', 'external training course', and 'feedback from colleagues or supervisor'.

The findings also support the notion that older workers are not sufficiently involved in lifelong learning. This insufficient involvement is also found for workers who are employed for a longer period of time. The learning events 'feedback from colleagues or supervisor', 'mentor or coach', and 'training-on-the-job' particularly decline as tenure increases. This confirms a recent TNS/NIPO (2008) study stating that 95 % of Dutch companies invest in training mostly for employees with five years of employment or less. Most of these organisations focus investments on the first two years of employment. Older workers significantly experience a longer period of employment, as well as less variety in learning and development, than their younger colleagues, as was found in the reported study. This is striking as the company under investigation employs a workforce whose average age is nearly 44 years. Older workers also form a relatively large portion of the whole group of employees (23 %). Severe problems can be expected should these workers take early retirement or spend several years on incapacity before retiring.

A significant and positive correlation was found between the formality of learning by a new task, job or project and continuous commitment, which is moderated by age. This could imply that older workers become more continuous committed

when they learn more formally in a new task, job or project, although causality was not studied. This relationship is even stronger for respondents aged above 55, than for colleagues in the other age groups. This finding supports the conclusion of, for example, Bartlett (1991) on older workers showing significantly more organisational commitment, and of Meyer et al. (1993) on a positive correlation with continuous commitment in particular. These results also support the findings of Thijssen (1996) and Rhebergen and Wognum (1997) on older workers who prefer to learn work-based and by means of new experiences. This finding opens ways to arrange new learning and development initiatives to improve older workers' organisational commitment and prevent them from exiting early. It also adds new insights to the public debate in which the knowledge development of older workers has often been narrowed to formal training courses (Van Dalen et al., 2007). Van Dalen et al. (2007) point to the self-reported preferences of older workers for learning new skills and knowledge by doing practical tasks, and through consulting experienced colleagues.

13.8. Discussion and suggestions for further research

The findings should be treated with care because the study was done in a single medium sized Dutch metal firm. The metal sector was selected because of a foreseen lack of employees and a greying workforce. A medium-sized company was selected because SMEs are more vulnerable to the demographic shift towards old age, and because, unlike larger companies, they tend to favour informal learning and development. Although the sample of respondents represents the composition of personnel in the firm studied, the results cannot be generalised to other firms in the metal sector, to firms in other sectors of industry, or larger companies. Further research is needed among more metal companies in the Netherlands and abroad, among SMEs in other sectors of industry, and among various large companies.

Another remark should be made concerning the newly developed formality scale. Based on Colley et al. (2003) four groups of attributes of formality and informality concerning learning and development initiatives were distinguished: location/setting, process, purpose, and content. A first exploration through a factor analysis with varimax rotation showed four components as well. But the attributes of Colley et al. (2003) seem to be mixed to a certain extent. New research among many companies is needed to study further the specific structure of all discerned attributes of formality and informality concerning HRD activities.

Greater involvement of older workers in learning and development activities is fundamental to support organisational commitment and their participation. To be successful, companies have to arrange learning and development initiatives which combine formal and informal aspects. The results of this study raise questions on the specific composition of these formal and informal aspects. Which aspects should be more or less formal or informal? When should, for example, the learning content be formal while learning process, place or setting as well as the formulation of learning goals, should be more informal? Does this depend on specific competences to be learned, or a specific target group? Further research is needed to address these issues.

Findings from other studies suggest that the nature and strength of the relationship between formality of learning activities and commitment might be determined by how employees perceive the situational characteristics and organisational support valuing their commitment (Maurer et al., 2003; Meyer and Smith, 2000; Eisenberger et al., 1986). Some studies point to specific personal characteristics that are important in improving organisational commitment, such as conscientiousness (Snijders-Blok, 2008), older workers' developmental potential (Schakel et al., 2006), or self-efficacy (Maurer et al., 2003). According to Maurer et al. (2003) favourable situational conditions will positively influence self-efficacy for development. These are variables such as work support for development by supervisors and co-workers along with the availability of development and learning resources and policies that support and encourage development. In their study, older workers were receiving less support for development (Köroğlu, 2008) and generally possess fewer individual characteristics such as learning preparedness that should improve development. Maurer et al. (2003) also found that being relatively old at work is a key concern with respect to learning and development rather than one's absolute, chronological age. 'Being older in a young group might lead to less support and encouragement to pursue challenging assignments that require intensive learning if there are younger individuals who might be perceived to be more appropriate for such assignments' (Maurer et al., 2003, p. 718). Maurer et al. suggest that attention in the workplace to employees' relative age (and not just chronological age) should be a concern when addressing possible age bias or discrimination in development. Therefore, further studies on older workers' involvement in learning and development and their organisational commitment should consider situational characteristics, organisational support and employees' relative age. These further studies could also include variables concerning employees' prior education (Maurer et al., 2003) or occupational level. In the study reported in this chapter

significant differences were found between respondents having completed the paper questionnaire (mostly respondents with lower or less complex functions and a lower education level) and those having filled in the online version. Online respondents, for example, learned significantly more often by means of self-education or reading professional literature than respondents completing the paper questionnaire.

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14. Enabling longer work life: four case studies

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ABSTRACT

The key question addressed in this chapter is which are the factors enabling longer working life? Four case studies provide empirical support for continued discussion on this issue. They cover different segments of working life: forestry work, public sector work, academics, industrial and service work. We find that enabling and disabling factors differ between trades. The availability of, and motivation to participate in, work-integrated learning is a key factor. Non-formal training and informal learning seem to become more important than formal education. In academia, incentives are embedded in the work itself. Knowledge transfer is generally considered a matter of success. At the individual level, sustained work ability requires relevant competence and adequate health. Obstacles to be overcome include negative attitudes among employers, officials, and the older people themselves. There is a specific need for development of know-how: how to enable older people to stay active in knowledge transfer close to the workplace.

14.1. Introduction ([1])

In a European context, work participation among older people in Sweden is comparatively high. According to OECD statistics, 69.5 % of men and women between 55 and 64 years of age are still working (OECD, 2007). This places the country at the top of EU Member States in this respect. Nevertheless, much like in the rest of the EU, increasing work participation among older people has been identified as a national priority. The official pension age was increased from 65 to 67 years in 2001 and various political initiatives are being taken to aid continued employment for the 67+.

Even though the average retirement age is high, closer analysis reveals large differences between segments in the population (e.g. gender,

([1]) The case studies reported in the present paper have been financed by the European Social Fund (project 9392235440) and Region Västra Götaland, Knowledge and competence development (project RUN 612-0640-07).

occupational and ethnic groups). Our understanding of the rationales behind this complex picture is incomplete. There is a need for theoretical and empirical contributions that address the interdependencies and connections between ageing and work, for studies of how ageing workers' competence is capitalised in the labour market, and for detailed analyses of the approaches taken by stakeholders to keep an ageing person employable.

In this chapter, we first identify some theoretical starting points by considering the concepts of work and work forms (Section 14.2). After a first section that outlines our methodology, we introduce four Swedish case studies (Section 14.3) with the aim of shedding light on the processes and factors enabling longer working lives.

In Case 1 we focus on people with specific occupations and examine how they manage to work beyond retirement age; which are the individual factors that enable or hamper work in older age in terms of obstacles and possibilities. The methods used are observations of and questionnaires to university professors. We found that the forces to continue working for this kind of work are inherent and embedded in the work itself (as we may find also in other strands of work such as career-oriented work forms and self-employment). For these types of occupations economic incentives seemed to be of little importance.

In Case 2 the focus is on contextual factors: what are the general obstacles that people over 50 years of age encounter when they endeavour to remain in or return to the labour market. The results are based on an interview study with problem owners, representatives of social partners, etc. The main conclusion from this study is that there is a need for an expanded theoretical concept called 'contextual employability', which incorporates obstacles that individuals have little control over.

Case 3 considers the role of work characteristics and is a study of an educational programme in the forest industry addressing the factors that aid staying longer in working life before retirement. Here a questionnaire was used to investigate participant motives. We found that recurrent education for older workers could be an effective instrument to motivate people to remain active in working life and that education is most effective when it is closely linked to the workplace.

Case 4 is based on experiences from a continuing project in western Sweden. This discusses the issue of how to bring about relevant knowledge transfer in an organisation, considering, among other things, an ageing workforce and increasing retirement of staff. Some preliminary results are presented based on recent interviews with managers in some 20 public and private sectors. In these case studies there is a tendency towards a change from formal education and training to informal and non-formal learning, and training shaped as knowledge transfer

close to the work place and work-integrated learning. In all trades knowledge transfer is looked on as a contributor to success for the company. In such processes there would be good opportunities for involving ageing workers.

From these case studies we can conclude (Section 14.4) that if the aim is to increase work participation among 55-64 year olds (and even older) it is unlikely that economic incentives will suffice. The realities behind the statistics need to be addressed and participation should be seen in the place work has, or may have, in the life of the citizens (different work forms as a part of different life forms and also different life styles, for instance).

14.2. Theoretical starting points: work and work forms

What is work? The question has been posed in hundreds of articles and books of the last century and the answers have been diverse (Holmer and Karlsson, 1997). We think that instead of defining work it would be more useful to distinguish between different work forms.

As an example, Pahl (1997) considers an image of a woman ironing. He writes that the woman:

(a) could be a full-time wage-worker producing garments as a domestic outworker (perhaps not owning either iron or materials);
(b) is preparing the garments for sale in her own boutique;
(c) is ironing for a member of the household.

Here, within a single activity, we can distinguish between three different forms of work: work as wage labour, self-employment and domestic labour. Further we may (as Pahl does), think of the woman ironing for her mother-in-law (whom she detests) or her husband (whom she barely tolerates), her child (whom she adores) or her lover (whom she desires). Perhaps she is actually ironing as relaxation. Thus we cannot decide from the activity itself which work form it is, nor can we conclude if it is a good work, not even if it is work or not. The same activity can be work or not work depending on whether or not it is performed to survive.

So work, we propose, comprises activities performed within social relations in a sphere of necessity, and work forms are different ways of socially organising what people have to do to support themselves in a given society (Holmer and Karlsson, 1992). When talking about work forms, we generally think of wage labour, but there are, as we have seen, a whole set of work forms. First wage labour can be divided, for instance, into a traditional form and a career-oriented

form. Then there are self-employment, housework, etc. We may also distinguish between formal work as wage labour, and informal work as voluntary work.

In each work form we can find salient features of social relationships. In wage labour, for instance, there is a typical relationship between the employer and the employee as neither of them would be what they are without the relationship between them. In each work form we may also expect different thought configurations regarding work. For self-employed people the thought configuration about work may mean that the full 24-hours a day are labelled work. The work activity is both its own object and means to earn a living. Work and leisure are not separated in any distinctive way. However, for a blue-collar worker, work mostly is a means to earn money and nothing else. In this case work and leisure are separate parts of life. Individuals in a career-oriented work form, on the other hand, may think that work is not just a means, but also an object in itself, worth postponing – or even dissociating from – leisure.

These work forms are ideal types in a Weberian sense and there are individual characteristics, etc., but, *ceteris paribus*, we can expect different thought configurations also when it comes to working at old age. These work forms and thought configurations are constituted in society where the individual life course may be divided into three sections of time (Academy of Finland, 2007): schools and education in childhood and youth; participation in working life; and exit from working life in the age of retirement.

In modern societies, life courses and transitions have been separated from each other and institutionalised via welfare policies, etc. They are individual, transitory and parts of different life styles, whereas work forms are performed in a more permanent way as part of different life modes.

In a rapidly changing society, we may assume that different work forms will vary to a greater extent in individual life courses, and that individuals will move between formal work, informal work and 'study work'. But these transitions are not in focus when we take the ageing workforce into consideration.

14.3. Research questions and methods

The key question of this chapter is which factors enable longer working lives. Four case studies constitute the empirical basis for giving a tentative answer.

14.3.1. Case 1

Some evidence suggests that people with specific occupations such as scientists, artists, medical doctors, etc., are more likely to continue their work after retirement age and have longer working lives. However, little is known about the personal characteristics and supportive conditions that enable them to remain longer.

With respect to older university professors, some conclusions may be drawn from studies of the effect of abolishing compulsory retirement in different countries. Such a reform was introduced in the US in state universities in 1994, to comply with federal legislation against age discrimination already in effect. The previous retirement age had been 70 years; after the change, tenured faculty were offered, in principle continued employment for life. In a follow-up study some years after, it was found that at age 70, 70 % were still active. At age 72, about 50 % were still active (Ashenfelter and Card, 2002). Similarly, in Australia, many professors continue working beyond 70 after obligatory retirement was abolished. Economic incentives seemed to be of little importance for this group (Anderson et al., 2002).

To investigate the situation for professors in Sweden, a questionnaire was distributed among a representative sample of retired university professors (n=250, response rate 92 %) (SULF, 2006).

More than 90 % stated that they had continued to carry out research after retirement (at 65), but that this work was not supported by grants. Almost all of them had their applications turned down with the tacit opinion ‘excellent research, but the applicant is too old’: most research was carried out at their own expense. Most of the respondents (70 %) were allowed a study room and other facilities (computer, telephone) at their university departments. However, the situation differed greatly: professors at the faculties of art seemed to have most difficulties in keeping their facilities and only a quarter of the scientists had laboratory facilities at their disposal. The investigation showed that about 65 % of the retired professors remained active as tutors and also continued being teachers and mentors.

For how long are these retired professors active in working life? In a recent investigation of university professors retired for 10-17 years (Seniorakademien, 2008), it was found that all of them had continued working, sometimes even with heavy field study work. The investigation was an in-depth study of 11 professors from different faculties at the University of Gothenburg. One of the scientists (who retired 15 years ago) reported that in his laboratory he had a unique material of polychaetes (a sea worm) which he had cultivated for decades. Some of these species are appropriate as testing animals for studies of marine pollutions and are ‘exported’ to foreign laboratories. Another scientist was still doing research in dento-facial development and the reaction

of tissues to orthodontic treatment 17 years after retirement. One who retired in 1993 continued his archaeological work whereas one of his colleagues (also retired in 1993) was still working on the improvement of radiotherapy methods. All of them have been active for a long period after retirement. A Noble Prize laureate noted that his research had been more extensive after retirement than before; almost 20 years after retirement he is still very active.

Specific occupations such as scientist are examples of work forms where work and leisure are often inseparable. A professor stated: 'when you are 65, you suddenly don't cease to be interested in that which forced you to do so many years or research – days and nights, weekdays and holidays. You are not a professor without this driving force and an all-absorbing interest in research. Salary is not that driving force'.

When retired professors are enjoying their 'otium' it is in the sense of the Latin 'time off, especially from public service'. But there is also a connotation of the word 'otium' meaning time off devoted by intellectual Romans to studies and authorship. In the plural 'otia' meant work in leisure/off duty time. The motivation for this kind of work is inherent, embedded in the work itself.

This devotion and commitment, we think, is a result of personal characteristics (talent) and often an interest since childhood. The pleasure in knowing something and having the capacity to learn and do new things is important but commitment is also a result of work characteristics: work with exacting duties and good possibilities to manage, control and follow up what has been contributed and achieved. These work characteristics are necessary, though not always sufficient, conditions to allow people to work at old age. By now the rules for retirement seem to be obsolete (a relic from a Prussian time) meaning that the 65+ are exposed to more or less benevolent attitudes from the authorities. There is a penetrating attitude here that could be studied in a Foucaultian manner looking for underlying discourses in rules and regulations. This would mean a concurrent analysis of different contexts (legal, religious, ethical, psychological, literary, medical and biological) of age and ageing, in which age and ageing are described, metaphorised, explained and judged (Foucault, 1993; concerning the discourse of sexuality).

14.3.2. **Case 2**

Which obstacles do older workers (50+) face when they endeavour to remain in or return to the labour market? This question was highlighted in the project Life competence 50+, carried out under the auspices of the European Social Fund in 2005-07 ([2]).

([2]) Available from Internet: http://www.livskompetens.com [cited 2.9.2009].

An interview study was undertaken with 78 workers over the age of 50, representatives of social partners, and officials representing the Swedish Social Insurance Agency (FK) and the Public Employment Service (AF). The interviews were based on a guide covering personal and contextual factors.

We identified four types of obstacles:

(a) competence-related factors;
(b) health-related factors;
(c) rules and regulations;
(d) negative attitudes (Kadefors et al., 2007).

The most common aspect highlighted by all groups of interviewees with respect to competence-related factors was a lack of updated technical abilities, particularly concerning the use of ICT. In many cases previous employers offered no or insufficient opportunities for competence updating, but many individuals were also afraid of new technologies and were reluctant to take part in educational activities. These findings support the scientific literature dealing with the concept of employability (Garsten and Jacobsson, 2004) and particularly the realisation of lifelong learning.

Health-related obstacles were important to many of the interviewees. In particular, problems in the musculoskeletal system (low back, shoulder/neck) were highlighted, not only by those employed in jobs characterised by physically demanding work conditions, but also by white collar workers. Several individuals reported problems with high work pace and with irregular work hours, particularly shift work. These health-related obstacles relate in part to effects of natural ageing, but also to ailments caused or aggravated by exposure to risk factors in previous jobs. The concept of work ability, characterising the ability of the individual to meet the demands presented at work, has been researched by Ilmarinen (2006) at the Finnish Institute for Occupational Health. He found that musculoskeletal ailments are among the most important factors impairing work ability in many occupational settings.

Obstacles in rules and regulations are more often related to their interpretation by authorities than to their legal framework. However, a formal obstacle mentioned by many interviewees is that older unemployed persons do not profit from the same financial incentives when participating in university programmes as their younger counterparts. It is also more expensive for an employer to recruit an older person than a younger one due to the higher pension fund contributions. Some problems are also related to lack of cooperation between the two main government authorities involved (FK and AK), sometimes resulting in confusing situations for jobseekers. In a bureaucratic, thoroughly regulated society such

as Sweden, such problems are not always easily addressed. The long delay by the government in implementing Council Directive 2000/78/EC, 'establishing a general framework for equal treatment in employment and occupation' (European Council, 2000), addressing issues such as age discrimination in working life, is indicative of the problems encountered in this respect.

Negative attitudes are reported as a serious problem by many individuals. Many employers were negative and stated their reluctance to employ a person older than 50 years. Among officials of the authorities (FK, AF), there was often lack of interest in supporting the older unemployed. Jobseekers had negative attitudes, were lacking self-esteem and motivation due to a general feeling of being too old to qualify for employment. In literature, the attitude of employers has been studied in a survey carried out in the context of Senior 2005. In this project it was found that 53 % of the employers felt that older people have difficulty learning new things, and a majority stated that they never employed older workers (50+). It is interesting to contrast these negative attitudes with the fact that there is no empirical evidence proving the interrelation of productivity at work and age (Greller and Simpson, 1999).

The results show that employability of older persons is related to a set of more complex factors than is usually understood. Some of these were related to the individual concept of employability as identified in literature, but there was also a set of obstacles which the individual cannot easily influence and which are related to the workplace and the government authorities that people encounter when they seek employment.

We believe that there is a need for an expanded theoretical concept, to consider the full set of obstacles met in practice. We suggest that this concept be called 'contextual employability'. The classical concept of employability relates to characteristics of the individual whereas contextual employability also reflects obstacles that the individual can hardly influence. It is essential that the full set of factors be considered when we wish to understand why an older person may not be able to find employment.

14.3.3. **Case 3**

The third case examines the factors that support longer working lives in the context of investment in education of considerable proportions within the forestry industry during the late 1990s. One of the founding resources in the Swedish economy, forestry has gone through a major change in production technology during recent decades. Discussions on the education and competence development of machine operators (a major part of the workforce in forestry) were started towards the end of the 1980s. A total of

687 persons in 14 forest industries across the country participated in one or several courses within the frame of this programme.

With low personnel turnover, average employee age had increased; too few qualified young people were recruited. It became clear that older machine operators, who were often low-qualified, needed to improve their knowledge and skills in subjects such as mathematics, chemistry, physics, Swedish and English to remain employable until the age of 65 and to master organisational and production-related changes. The issue of increasing average age, combined with low employee turnover, implies that new knowledge and competence demands cannot be met by only recruiting younger, better-qualified persons. All workers need further education. Most industries that took part in this project were well aware of the inadequate qualifications of the workers. Further education was needed for the development of the company and also to make it possible for employees to work until retirement. This extensive educational project came at a time when the Swedish forestry industries went through a process of structural change.

Until quite recently, the Swedish forestry industry and paper mills recruited employees with low level formal education, with the instruction and learning processes taking place mainly at the workplace; there were no formally well-educated available people to recruit. Technical development had been unbelievably rapid during recent decades and output from the education system was not enough to meet skill demands. Today, formal qualifications required for recruitment are much higher compared with just a decade or two ago. Many older workers (50+) lack sufficient generic skills and key competences. However, the concepts of training for machine operators varied between industries at the time the programme was introduced. There was widespread belief in some industries, and this was reinforced by labour unions, that older machine operators had qualified themselves through a process of long work experience. However, this was shown to be incorrect.

For most employees in forestry and paper mills, and not least the older machine operators, it is not realistic to leave for education, not even part time. Therefore, education, formal and informal, must be located close to the workplace or at home.

The purpose of the programme was initially to recruit the older (50+) machine operators with a short formal education, that is two years or less in upper secondary school. However, the paper mills taking part in the programme focused on the benefits for the enterprise, without paying much attention to the need of single individuals. Therefore, they offered all their staff the chance to take part in the programme. The older machine

operators with only nine-year compulsory school or less were most difficult to convince, confirming findings in previous studies. Among those operators who participated, 75 % had one or two years from secondary school or less.

Some of the older machine operators were sceptical about formal studies in relation to their job and the long work experience they had. However, there was also a deeply personal more positive dimension. Many machine operators wanted to prove to themselves that they had the capacity to go back to school and study mathematics, physics or whatever. This dimension should not be undervalued.

Four prerequisites of the project were formulated:

(a) teaching and learning should be computer supported;
(b) a tutor, supervisor or a contact person, that is a more experienced and highly motivated work fellow, should be recruited in every single industry;
(c) some subjects were picked beforehand;
(d) the industries participating should cooperate within the programme.

Another core element in the project was that every participating paper mill should establish a local learning centre with computers and other appropriate equipment and that each facility would have a contact person. The local contact men were a determining factor for the success of the programme, as well as for the individual participants. The ratio of drop-outs differed considerably between the industries, which indirectly reflected differences in the effectiveness of the work of the contact persons. It is important to remember that most of the participants experienced school much earlier and were not familiar with the use of ICT for instruction and formal learning.

In total 60 % of the participants completed the studies, suggesting that 40 % did not. This seems to be a high drop-out ratio but it is not unusual compared to other adult education programmes. The group that dropped out did not see any reward for their efforts. Many of them underestimated the time they would need to devote to their studies and the importance of drawing up a weekly schedule which would be compatible with their job at the paper mill and home life. Perhaps they had an overly optimistic view of their own capacity combined with the illusion that it would be easier to study with the help of computer support. Lack of study experience and support from their own place of work were two strong contributors to drop-out. It is important to note, however, that most participants had a realistic image of what the studies would involve and the time it would require.

Computer-based distribution of teaching and learning was a main part of the programme. However, ordinary prescribed books were most used, as the time

was not right for computer-based and computer-distributed adult education. Even if the educational and pedagogical model was ambitious, most participants studied in traditional ways, mainly through self-study. One participant in five had a fellow student and only 25 % used the computer and Internet regularly. In 2008, the situation would probably be different. The use of computers and Internet in Sweden, in all age groups, has changed dramatically over the last decade.

Many of those who completed their studies indicated that their self-reliance and confidence had been boosted and that an underlying interest for education and training had been awakened. A few even applied for university studies and were admitted. It is intriguing to note that most of the participants stated personal motives rather than work-related rationales when it came to their interest in study. Almost half of them stated that they had thought about starting adult education at some stage, but had not made up their mind. Another important reason for participating was to strengthen opportunities in the labour market: the better the education, the lower is the risk of being laid off when workforce cuts occur. Only one third considered that they needed better education for their assignments in their current jobs. This means that the employer assessed the requirements differently from the employees.

The most important result for paper mills was that some of the employees received better theoretical knowledge in subjects considered essential for business while those who completed the education programme showed greater motivation to complete their work assignments successfully. There was also a possibility, at a later date, of recruiting this staff for diploma/certificate courses; many assignments within paper mills require such certificates.

A significant outcome from the programme was that the paper mills learned how to make quickly an inventory of different ways of supporting, stimulating and changing the way of operation; in this respect they were likely to be more successful than other more passive and less flexible enterprises (Thång and Larsson, 2000). This process resulted from the need to develop and adjust pedagogy to new media and the target group continuously. Other conclusions were that there has to be an obvious and distinct distribution of responsibility among those concerned, and that the technical equipment must be working and checked beforehand.

In conclusion:

(a) the educational programme in paper mills resulted in better educated and motivated individuals which aided the introduction of new technologies and organisational innovation;
(b) good education prevented individuals from being excluded from the labour market;

(c) there was an evident connection between how individual participants rated the commitment and support from the paper mill for the programme, and their own success;
(d) recurrent education of older workers could be a vigorous instrument to motivate them to stay longer in working life.

A more general conclusion is that there is a need to develop learning environments and methods in working life as well as education for adults in vocational and higher education, and in other forms of formalised education. Work integrated learning (Thång, 2007) provides one opportunity for individuals and groups to transform work-based experiences into the world of theory and cognitive concepts, and to transform cognitive concepts from the world of scientific theories to the world of work.

14.3.4. **Case 4**

The final case aims to examine how to bring about knowledge transfer in organisations in a context of an ageing workforce and an acceleration of retirement. In a current R&D project in western Sweden the main task was to explore models which might develop the competence of the employees in a way that is conducive to building up competence for the organisation as a whole. It is important to find forms of knowledge transfers and knowledge constructions which not only strengthen individual professional expertise through lifelong learning but also improve knowledge in terms of organisational learning, making the organisation less susceptible to the in- and outflow of individuals. With each employee having their own competence, expertise and implicit knowledge, the issue is how this competence could be made explicit, be given a collective meaning and be turned into collective competence serving the organisation. The main question then is how to enable knowledge transfer that supports this.

To investigate this issue we have chosen a descriptive research design: what processes are in place in different organisations? Case studies of about 20 different organisations in western Sweden involved long interviews with their management representatives. In the following we present some results from the first part of the project which is about the ageing workforce and how the ageing workforce has been handled in these organisations.

The organisations are distinguished by varying types of production:

(a) production of goods and commodities:
    (i) work intensive (such as truck factory);
    (ii) capital intensive (such as nuclear power plant);

(b) production of services:
    (i) knowledge intensive (such as university);
    (ii) work intensive (such as mail-order company);
    (iii) human intensive (such as hospital).

The organisations differ considerably in terms of production and the size of their workforce, which ranges from 20 to several hundreds. Despite these differences, there is a pattern of similarities in some respects. The turnover of staff is – with some exceptions – low, and at the same time the number of retirements to come in the next years is high. The general attitude towards the ageing workforce is favourable, and most organisations are positive about the individual competences of older employees. Most of them employ special strategies to bring about knowledge transfers, for instance between older and younger employees, but there are no special arrangements to meet the distinct needs of older employees. For most managers, knowledge transfer is not so much connected to formal education as to various types of work-related learning. Most of them underline the need for an overall, *Gestalt*, knowledge which many of the older employees are said to have.

We will scrutinise some of these points but start by comparison with an investigation carried out about 15 years ago (Holmer, 1995). That investigation also concerned some 20 organisations in western Sweden. The comparison is not entirely valid as those former companies had just changed, or were on their way to changing, their organisation, but it can be used as a useful starting point to indicate recent developments.

Even 15 years ago there were trends showing that management favoured:
(a) involvement of the employees in a 'feeling of a joint mission';
(b) the group/the team to take greater responsibility;
(c) the employees to have an overall view of the company and the world around including perspectives of the company to come (some mentioned a request for an 'all around knowledge').

But today – in the case studies of 2008 – the opinions of managers on the need for formal training only partly reflect these ideas. 'Ordinary' training – attending courses for example – seems to decrease in importance while the benefits of workplace-related competence development, where older employees might be involved as knowledge transferers, has become increasingly relevant. This also implies that less value is attached in recruitment to official certificates, etc., than to reported (and preferably validated) knowledge and practical experience.

While some formal education is seen as necessary to learn specific contents, this is not deemed as important as the way in which students have learned to acquire knowledge and to compile facts. From a content point

of the view, most competence development can be arranged by internal training at the company: 'especially as regards management tasks and developmental activities, we would like to recruit persons with university college certificates. This formal competence should mean that they could take in the whole situation, could document, analyse, compile and write reports that they on the whole could express themselves verbally and in writing' (case of work intensive production of services, haulage firm).

While this is a case of desired formal education, most managers take a view of other forms of knowledge transfer implying non-formal training. This is achieved by:

(a) studying by walking around/learning by asking; some colleagues giving instructions and explanations;
(b) work in parallel (the post is filled by two people);
(c) sponsorship (including continuous guidance);
(d) mentorship;
(e) other forms of guidance and supervision;
(f) working in teams (often cross-professional);
(g) workplace meetings;
(h) seminars;
(i) special programmes for knowledge transfer;
(j) exercises connected to changes in technology and organisation or when new products are introduced.

We give some concrete statements focusing on the knowledge transfer between older and younger employees:

(a) 'One of our employees approaching retirement, has as his task to train some younger employees to the section of machines used for cutting treatment. He coaches starting from the direct production and foremost by being a support and knowledge bank when problems are raising or by suggesting alternate ways of managing problems in the production in order to have the team continuing their tasks' (case of work intensive production of goods and commodities; sheet metal factory).
(b) 'Older assistant nurses teach us all. These older nurses' experiences appear for instance when they perceive the "glimpse" in the eyes of the patient, and by that observation conclude if the patient is improving or not. These nurses tell about their experiences at all divisions. They could tell us about working with a violent and unreachable frontal lobe demented patient. It's a question of treatment and of how you touch the patient. The assistant nurses are practicing – here and now, and they have learnt that treating and touching are the be-all and end-all' (case of human intensive production of services; geriatric care).

(c) 'We have course-teams for interchange of experiences. In these new employees are introduced. The older employees are telling about their sections of a course, and then these older employees even catch sight of each one another. The new ones are coming in as catalysts. Something new is happening – everybody is learning. You may speak of transfer of knowledge *in situ*' (case of knowledge intensive production of services; University College).

(d) 'In the maintenance section a programme for knowledge transfer is tested containing as a first step identifying instructors and selecting older technicians and engineers with a key competence. Then these instructors are participating in recruiting of new employees and in the matching of new employee to instructor/tutor. And so the knowledge transfer starts according to a special programme, with process support to the instructors among other things. Most of the learning is integrated into the work. The new employee follows his tutor or part of a working team (time varying between some months, up to three or four years with continuous guidance)' (case of capital intensive production of goods and commodities: nuclear power plant).

Sometimes older employees are not perceived as having special knowledge (for instance stock-room workers). In some professions companies do not see a need for workers to stay after retirement. Some technologically advanced companies primarily employ masters of engineering and blue collar workers vocationally trained in engineering. Their competences are generally not irreplaceable but, in those cases where the competence is considered to be personal, they are connected to just that person.

But far more often the uniqueness of specific competence of older employees is mentioned, which comprises an overall view of the company and the world around. In the nuclear power industry, managers refer to identify and solve problems, planning the whole working process (including giving orders for tools, etc.) and planning stoppage of production. Engineers and technicians with this type of competence are lacking. In the motor industry there are difficulties in replacing 'full car constructors' 'having acquired a comprehensive picture not present in any documents, a feeling for the production', while other diligent, 'niche' specialists (in safety belt stops for instance) can be found and trained. In the sheet-metal industry, the overall view of the older employees is mentioned and, moreover, their deep knowledge of materials, their ability to imagine the completed product and from that to predetermine proper working processes.

For some occupations there is a severe shortage of skilled labour; for example nursing assistants and pre-school teachers. With the former, the older nursing assistant competence in handling and treating their clients is highlighted but many employees in such physically intensive occupations are not interested in staying in their jobs when getting older. It is important to be able to change this work to lighter tasks and create opportunities for older workers to transfer their unique competence to their younger colleagues.

To keep the competence in the organisation, some trades have created an incentive for older employees (60+) to remain active for a prolonged working period according to the 80-90-100 model. This means that the employee is working 80 %, has 90 % full pay, and retains 100 % pension at official retirement. One of the responsibilities of the persons employed in this scheme is to participate in mentoring activities. Even though it may be seen as costly for the employer, it has been shown to be an economically sound option for an organisation that is highly dependent on the knowledge of seniors, such as power plants (Mykletun, 2007).

14.4. Concluding remarks

In the future, work time arrangements and work forms will change, and what people think of work – for instance about moving between informal and formal work – will also be different from today. This implies that thinking of working in old age will change as well. It is, therefore, important to examine what people think of their work and duties today and what may motivate and enable them to remain active longer.

Wikman says that 'casual empirical evidence suggest that people with specific occupations […] are more likely to have longer working lives, but little is known about the personal characteristics and supportive conditions that enable them to remain active longer'. Statistics on pension age in different Swedish occupational groups demonstrate substantial differences (Wikman, 2007). In some occupations, people tend to work almost up to official pension age: this is true in many white collar groups (including university professors), whereas in blue collar work, particularly in occupations characterised by high physical demands, it is customary to retire early. Women retire earlier than men, immigrants earlier than Swedish born. If the aim is to increase work participation among those 55-64 years old, it is unlikely that economic incentives will suffice. We believe that this is not only a matter of national

economics, but should be seen in the context of the importance work has, or may have, in a citizen's life (different work forms as a part of different life forms and also different life styles, for instance). So we presume that it is less personal characteristics than work forms, work characteristics and contextual factors (such as rules and regulations) that enable individuals to work beyond what is considered retirement age.

We should also pay attention to the role of education, training and learning through the life span. A study of top and middle managers in Swedish industry indicated that formal education is necessary for this kind of career management. But formal education is not sufficient (Jordansson, 2007). Graduation from a school of economics, for instance, is only an entry requirement, as with most other graduations, and does not incorporate evidence for sufficient work experience. The study also showed that 'formal education is more important in industry than in the trade and service sectors. It is also more important when it comes to operative positions than in staff functions' (Jordansson, 2007). Workplace learning occurs in daily work where decisions are taken relying on know-how and practical judgements. The stress on workplace learning will challenge academic authority on the legitimisation of knowledge (Gibbons et al., 1994). Continuous work dynamics and expected future skill shortages, induced by demographic change, have intensified the focus on competence and skill development, skills acquisition and skills accreditation.

In all case studies discussed in this chapter there is a tendency towards a changeover from formal education and training to informal and non-formal learning and training in the form of knowledge transfer close to the workplace, and to work-integrated learning. In all trades knowledge transfer is looked on essential to company success and involving the ageing workforce would be an attractive option. But, even if there are good examples in the case studies, most of the action seems to be casual and carried out without much reflection. The development of know-how in this area should be intensified. This could be done by seeking research-based knowledge of relevant procedures, not only for informal and non-formal learning but also for improving the transfer of formal education to learning processes at work. The dominant epistemology in higher education is to define the best conceptual models to represent external reality (Raelin, 2007). In the practical world of work, it is often problematic to develop mental models and theoretical concepts for understanding the daily experiences more deeply.

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15. Self-organised learning by older workers: a self-realising goal?

Gerald A. Straka, Johannes Rosendahl, Gerd Spevacek and Jörg Hobusch

ABSTRACT

In the project *Selbstorganisiertes Lernen älterer Erwerbspersonen und arbeitsplatzbezogenes Lernen* ([1]) (SELA, self-organised learning of older employees and workplace learning) a computer-based learning environment in data processing was constructed and adapted to the specific needs of older employees. Central hypotheses of the project are that self-organised learning involves a dynamic interplay between motivation, emotion, cognitive and meta-cognitive strategies; workplace conditions have an impact on self-organised learning; and that a computer-based learning environment and a computer-based learning environment integrated within organisational measures, have different impacts on self-organised learning. Analysing a sample of 295 older employees in business and administration, the dynamic interplay between motivation, emotion, cognitive and meta-cognitive strategies is confirmed (hypothesis 1), as is the impact of experienced workplace conditions on self-directed learning (hypothesis 2). Computer-based learning environments and their integration have different impacts on self-organised learning (hypothesis 3). The results indicate that self-organised learning can be successful only if the experienced work conditions and the didactic arrangement of the learning material are in line with the needs and learning prerequisites of older employees. These empirical findings suggest specific recommendations for didactic and organisation interventions on how to support older working employees to increase their capacity for self-organised learning. These include measures to promote acceptance of self-organised learning at all company levels (management, employee representative council and all lower levels), time management, individual learning needs assessments and aids in the SELA learning system (additional literature, textual and visual explanations for task-related topics, glossary, self-directed and individual exercises, self-learning checks).

([1]) Available from Internet: http://www-user.uni-bremen.de/~los/berichte/band6/inhalt.html [cited 3.9.2009].

15.1. Introduction

The International review of promoting lifelong learning for older workers (Cedefop, Tikkanen and Nyhan, 2006) addresses the issue of older workers form a lifelong learning perspective. It states that 'ordinary workplaces must become primary places of learning'. A central message of this review places emphasis on 'building […] learning supportive workplaces', which is regarded as crucial (p. 4).

In the context of accelerating technical and organisational change in the world of work, new qualification models that go beyond formalised continuing education, i.e. self-organised learning in the work process, become increasingly relevant. One effect of the transformation in the world of work is that responsibilities are transferred to the places where products are manufactured and services are provided. Employees in the second half of their career are facing challenges, as they used to learn and work under 'regular' conditions. Therefore, continuing vocational education and training for this group has to meet particular requirements which were examined in the business pilot study *Selbstorganisiertes Lernen älterer Arbeitnehmer und arbeitsplatzbezogenes Lernen* (SELA, self-organised learning of older employees and workplace learning).

Self-organised learning in information technology (IT) can be described as a process in which learners plan, organise, carry out, control and evaluate their own IT-related learning, be it in cooperation with others or on their own. This activity cannot be put into practice without reference to contents (in this case, IT). Further, the interplay of content and action is linked to motivational and emotional concepts. The willingness and capacity for self-organised learning turns out to be a core competence which is related to the way working conditions are experienced.

Therefore, an instrument to measure the willingness and capacity for self-organised learning in information technology was developed to evaluate the didactic and organisation measure: the SELA learning system. It was also investigated what structural relationship there is between specific concepts of self-organised learning and experienced work conditions. The SELA learning system was also analysed against the background of general didactical considerations concerning the age-oriented design of continuing education programmes.

The format of this chapter is as follows. First, the conceptual foundations are laid out through the development of a model of agency and learning. Subsequently, this model is tested on a sample of business clerks. The

influence of three factors of experienced cultural work conditions on interest, emotion and learning and working techniques is investigated according to the understanding of learning as interaction with historical and cultural environment conditions and with reference to the self-determination theory of motivation by Deci and Ryan (1993, 2000).

The next step involves the presentation of results from the SELA project, where an attempt was made to promote the capacity of self-organised learning of older employees by means of a specific 'adult-oriented' computer-based learning environment, partly combined with organisational development measures.

The central hypotheses that guide this chapter are:

(a) self-organised learning is a dynamic interplay between motivation, emotion, cognitive and meta-cognitive strategies;
(b) workplace conditions have an impact on self-organised learning;
(c) the treatments:
    (i) computer-based learning environment;
    (ii) computer-based learning environment integrated within organisational measures have different impacts on self-organised learning.

15.2. A multidimensional model of self-directed agency and learning

The modelling of a multidimensional concept of self-directed agency and learning is based on the elements 'strategies', 'control', 'interest' and 'emotions' (Straka, 2009; Weinstein and Mayer, 1986), which, according to our hypothesis, characterise self-directed learning. In what follows, these concepts are explained in brief.

15.2.1. **Strategies**

The concept of strategies is composed of the constructs 'acquiring' and 'control'. The construct 'acquiring' constitutes the core of each activity and comprises the dimensions of structuring, elaboration and repetition. Structuring includes activities that condense and organise the information relevant for the objective or task in question in a way that is suitable for learning and working: e.g. 'I take notes about relevant computer procedures while reading'. Elaborating involves activities that aim to relate new pieces of information to existing knowledge and to reflect the new information critically with regard

to form or content: 'I relate the things learned in IT courses to my own computer experience'. Repeating comprises learning activities that aim at the exact memorisation of information: e.g. 'I memorise computer skills by exercising them repeatedly'.

In learning in general, and self-organised learning in particular, it is especially the preparatory learning activities that gain importance: the construct 'resource management' integrates learning activities that serve the orientation about and the identification of information resources. Distinguishing between personal ('I ask colleagues for help when familiarising with new software') and non-personal resource management ('I use computer-based learning aids such as additional information, sample documents and demos provided with the software') is important.

The construct 'sequencing' is composed of preparatory learning activities that bring the contents to be learned into a logical sequence, e.g. when working on a complex exercise on the computer, 'I consider what to do first') and a temporal sequence ('I decide in advance when I pause my self-directed computer learning') (Pintrich et al., 1991).

15.2.2. Control

The term 'cognitive control' refers to whether specific learning activities are performed in a target-oriented and undisturbed, that is, concentrated manner (during my computer-based learning activities my thoughts often digress from the topic). The role of 'metacognitive control' is eminent, comprising activities of monitoring and evaluating the learning process, especially the assurance of one's own understanding (in the event that difficulties occur in the learning process I try to find out the reasons) (Brown, 1978).

The realisation of the learning activities described so far requires, in the context of learning, that the learner is already oriented towards the latter, that he is 'a live wire'. Recourse to interest-theoretical (Krapp and Prenzel, 1992; Nenninger, 1986; Prenzel, 1986), performance-thematical (Heckhausen and Rheinberg, 1980) and emotion-related (Pekrun, 1992, 2006) reflections and results aims to capture this fact through the concepts of interest and emotions.

15.2.3. Interest

The concept 'interest' consists of the constructs 'content-related interest' (such as actual interest in Excel) and 'procedural interest' (actual interest in the learning activity). These two types of interest are defined on the basis of the value-expectancy model by Atkinson (1964). The value component of the 'content-related interest' refers to the individual relevance that is assigned to

a goal anticipated in terms of its content, while the expectancy component refers to the prospects of realising this content: I believe it to be important (= value) and possible for me (= expectancy) to visualise data in diagrams.

'Procedural interest' is also conceptualised on the basis of a value-expectancy model. The value component refers to the personal importance assigned to a particular activity for the realisation of the desired learning objective. The expectancy component refers to the individual assessment of the possibility to realise this activity: I believe it to be important (= value) and possible for me (= expectancy) to assess whether I have achieved my learning objective.

15.2.4. Emotions

In this chapter, the concept 'emotions' refers to the constructs of joy (learning something new with my computer is fun for me), boredom (learning on the computer is boring) and anger (I am angry that I have to learn computer skills in the context of my job) (Pekrun 1992, 2006).

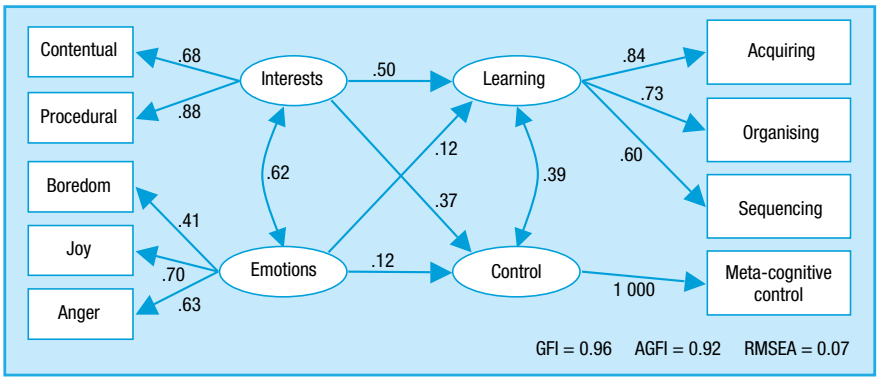
15.2.5. Validation of the model

On the basis of the modelling in the previous sections, self-organised learning can be described as a process in which a person shows a content-related interest in a topic, has procedural interest and emotions, applies strategies of resource management, sequencing and acquisition, and exercises cognitive and metacognitive control of their application with the aim of changing competences in a sustainable way. In this section we validate the model by considering each hypothesis in turn.

The hypothesis concerning the multidimensionality of self-organised learning was tested using a sample of 295 employees (59 % were aged 40 years or more, 26 % were female) from business and administration. Among these 20 % had an elementary school qualification (*Hauptschulabschluss*), 34 % had a secondary modern school qualification and 46 % an upper secondary school qualification. A factor analysis showed good separation of the scales with factor loadings above .40 and an average explained variance of 69 %. Figure 15:1 shows the validated structural model.

To estimate the goodness of fit between the model and the data, various fit indices are shown: the GFI (goodness of fit) and the AFGI (adjusted goodness of fit) as measures of the proportion of the variance explained by the model. Both indices range between 0 and 1 with a value near 1 indicating a good approximation of the postulated model to the data. The RMSEA (root mean square error of approximation) refers to the difference between the given correlation matrix and the correlation matrix estimated on the basis of the

Figure 15:1 **Relationships between interests, emotions, learning and control strategies**



GFI = goodness of fit.
AGFI = adjusted goodness of fit.
RMSEA = root mean square error of approximation.
Source: Straka and Spevacek, 1997.

calculated measures of the model. A RMSEA close to 0 indicates a good approximation. The fit indices calculated for the present model show strong agreement between theoretical assumptions and the empirical data.

A relatively strong correlation between interest and emotion (.62) as well as a weaker one between strategies and control (.39) is identified. The relationship between interest and emotion is in line with the Munich interest concept, which captures, besides the orientation towards the subject and its valuing, also the 'emotional shading' (Krapp, 1992). In addition, we found a relatively strong effect of interest to strategies and a weaker one to control. The effect of emotions and strategies on control is relatively low, and the correlation between strategies and control points to a mutual interconnection. In summary, the fit indices and the relationships between these four concepts correspond to the assumptions made before.

15.3. Workplace conditions

Learning in general, and self-organised learning at work in particular, falls within the responsibility of the learner: no one can learn for another. Learning in life and the world of work is always embedded in environments shaped by history and society. The consequence is that the concrete workplaces are characterised by different external conditions impacting self-organised

learning, to which the persons who work in these places can respond in different ways.

In the self-determination theory of motivation (Deci and Ryan 1985, 1993; Deci and Flaste, 1995) the authors argue that interest-driven behaviour is connected with the individual experience of autonomy, competence and social integration. For conditions at work these constructs may be specified as follows:

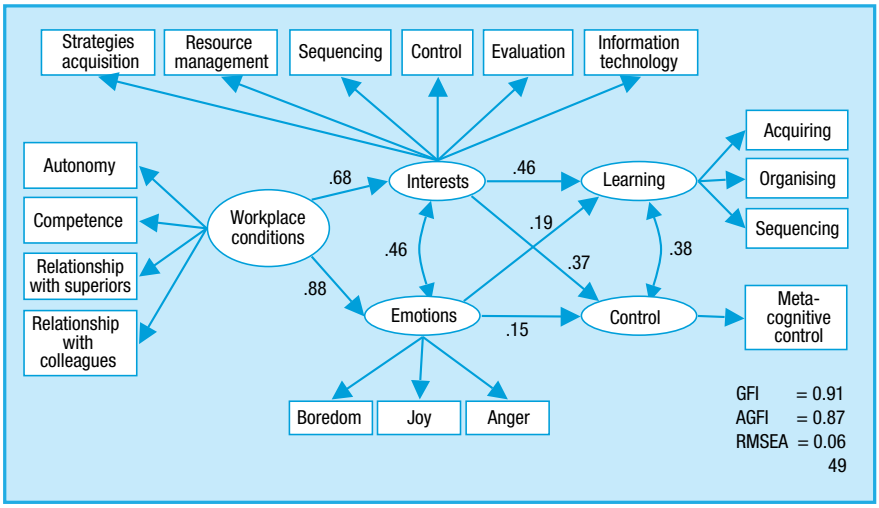
(a) experienced autonomy in the workplace is when a person has the impression of having scope for manoeuvre or opportunities to fulfil their tasks according to their own planning (my workplace offers the opportunity to work or learn by autonomous activity);
(b) experienced competence in the workplace is when a person experiences self-efficiency and when they feel confident of mastering their tasks in a professional and successful way (in my workplace I am an expert in my domain);
(c) experienced social integration in the workplace is when a person's work is valued by colleagues and superiors and when they consider themselves well embedded in the working community (in my workplace I cooperate very well with my colleagues).

15.4. Structural relationships between the concepts of self-organised learning

Based on theoretically founded empirical research findings (Deci and Flaste, 1995; Deci and Ryan, 1985; Krapp and Prenzel, 1992) the hypothesis is formulated that experienced workplace conditions have an effect on the interest and the emotions associated with the learning process. This means that the willingness for self-organised learning is influenced by experienced workplace conditions. In addition it is assumed that interest and emotions have an effect on the application of learning and control strategies. These hypotheses were tested on the sample of 295 older employees from the commercial sector.

How experienced workplace conditions influence interest and emotions was first tested (Figure 15:2). The concept 'workplace conditions' explains four indicators: the experience of autonomy, the experience of competence, the relationship to work superiors and the relationship to colleagues. The concept 'interest' explains six indicator variables, five of which relate to the construct of procedural interest, which is directed to the constructs of the learning strategies acquisition, resource management and sequencing, as

Figure 15:2 **Experienced workplace conditions, interest in self-learning, emotions, learning and control strategies**



GFI = goodness of fit.
AGFI = adjusted goodness of fit.
RMSEA = root mean square error of approximation.
Source: Straka and Spevacek, 1997.

well as control and evaluation. Content-based interest here refers to the value and expectancy that the respondents in this pilot study associate with the information technology contents Word and Excel. Finally the concept 'emotions' explains the three indicator variables boredom, joy and anger.

It turns out that experienced workplace conditions influence interest and emotions equally. The relatively high correlation between interest and emotions (r=.46) points to the person-object-theory of interest (Krapp and Prenzel, 1992; Prenzel, 1986), according to which interest is object-specific and includes also emotional and evaluative aspects. Whereas, in this interest theory, the emotional aspect is a part of the construct of interest, the present model views interest and emotion as independent concepts that mutually influence each other.

Further, it was tested whether the variables interest and emotions have an effect on the variables strategies and control. The latent dependent variable learning consists of the constructs acquisition, resource management and sequencing and the concept control is captured by the indicator meta-cognitive control. The results show that interest has an effect on learning strategies as well as on control strategies, as the path coefficients of .46 and .37 indicate. These path coefficients indicate the strength of the supposed causal relationships. The influence of interest on the application of the

strategies is slightly higher than on control strategies. Learning and control correlate with each other with a coefficient of .38, as the figure on the curved arrow shows. In contrast, the latent independent variable 'emotions' has little effect on strategy and control. Based on the fit indices and the coefficients, the modelling according to the hypotheses specified before is correct for this sample.

15.5. Experimental treatment

Based on these results the SELA learning system was developed with the aim of creating and promoting learning supportive conditions. The following elements guided development:

(a) in the SELA learning system, learners are given the chance to learn in a self-directed way and sufficient opportunities are provided for exercising and deepening their knowledge. The learning takes place largely without teachers and in close contact with fellow learners. This avoids an isolated learning situation, which would impede the learning process, and enables the experience of non-paternalistic learning (requirement for experienced autonomy);
(b) the SELA learning system gives the learner a topic-related feedback, for example through the self-learning check that allows learners to retrieve their success score (requirement for experienced competence);
(c) the SELA learning system creates a team atmosphere, for example using the chat mode. The reflection and regulation of the learning activity, which is helpful for the learning effect, can take place in a team-friendly way through discussions with fellow learners (requirement for experienced social integration).

In addition, the SELA learning system was particularly adjusted to the needs of older employees (Section 15.5.2).

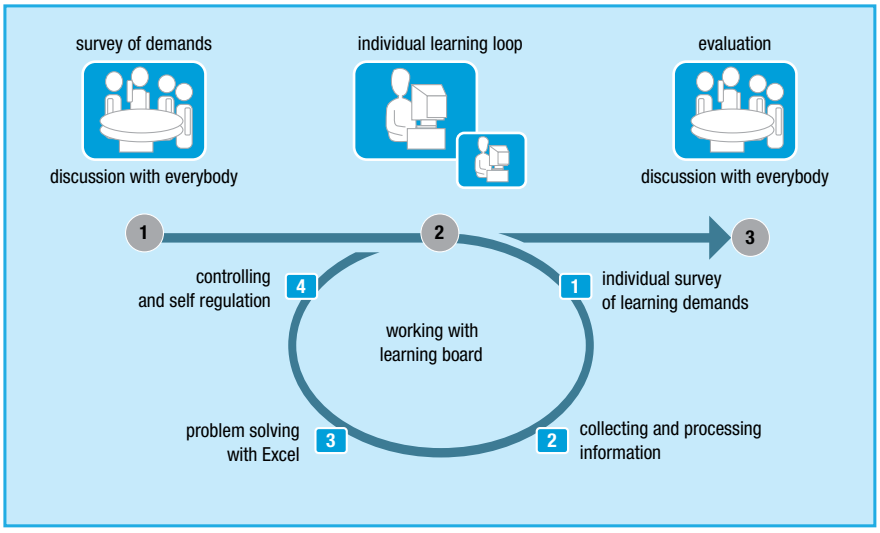
15.5.1. **Employee participation**

Older employees were asked to participate in organising the education programme so that the question 'what is to be learned, in what way and by whom?' was answered by employees considered eligible for the programme by superiors and colleagues in the company department where they worked.

When potential learning contents are oriented to work requirements it becomes clear that SELA focuses on the link between individual and organisational learning benefits: because individual optimisation of learning

measures is not separate from organisational development. For instance, entering SELA qualification pathways is characterised by the activity 'needs analysis'. This takes place within the department of a company and aims at identifying future work tasks and the new skills that have to be acquired to perform them. The aim of needs analysis is to coordinate concrete learning tasks which are subsequently developed for the individual learner. These learning tasks represent concrete requirements of the workplace and become interfaces between work and learning. Authentic and realistic learning tasks provide a framework and application context for the knowledge to be acquired (authenticity and situatedness). This necessitates learning arrangements that allow for largely autonomous learning in the workplace. However, besides providing different types of support, teacher participation in selecting learning tasks remains a focal point of the SELA arrangement.

Figure 15:3 **SELA arrangement**



Source: Straka and Spevacek, 1997.

Beyond this kind of participation the learner has the opportunity to determine the workload for learning and exercises independently of course times and offers. Whereas the learner in the 'normal' course context is left to his own devices as regards the transfer work, SELA learning in the workplace is characterised by the fact that the learner is part of a network of learners at

any time. This offers the opportunity to communicate with fellow learners and tutors about the right way to solve a task. After individual work on the assignments, the results are discussed in the workplace and optimised if necessary. Problem-solving strategies are articulated and reflected as regards their relevance for various contexts.

15.5.2. Age appropriate design of the physical learning environment

The capacity of the sensory organs declines when people grow older (Benda et al., 1989) so the physical learning environment has to be designed to take account of the following issues:

(a) the decline of visual acuity necessitates improvement in lighting conditions in the learning place. Older people prefer a two to six times higher level of illumination as well as a higher resolution and refresh rate on screens;
(b) older people are particularly light sensitive. To avoid unintended reflexes, shadows or too harsh contrasts the workplace should be redesigned;
(c) the screens used should be at least 17 inches if possible.

These recommendations were considered in advance in the SELA project. As the learning software was installed, each workplace was examined jointly with the head of department and suggestions for improvements were made where necessary: the head of department was responsible for the physical learning environment. This is important as the learner is shown that the learning programme is regarded as equally important as the daily work of the employees in this programme.

15.5.3. Combating prejudices against the learning and work capacities of older people

There are several prejudices against the learning and working capacities of older employees, which may lead to motivational barriers and learning obstacles due to lack of self-confidence. This is especially true for information technology (Rott, 1988).

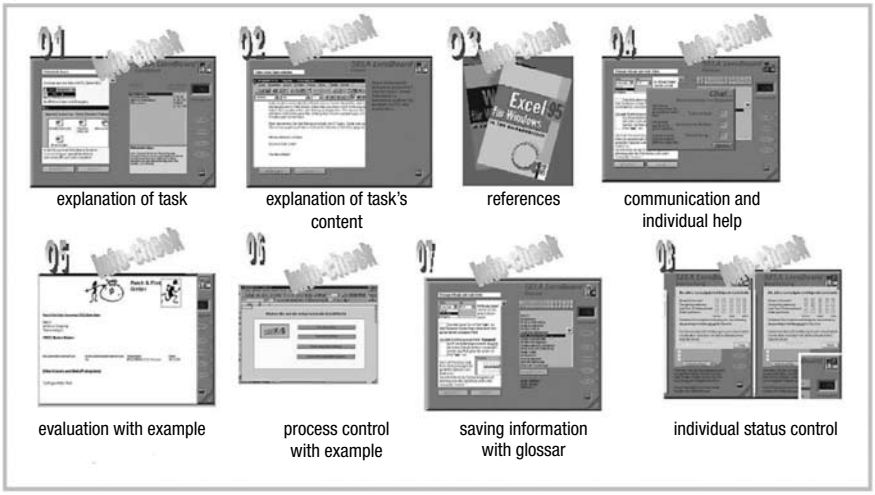
The SELA project addressed these prejudices in the introductory courses for learners and the workshops for senior staff. Stereotypes such as ‘older people are no longer capable of learning something new’ were discussed and refuted. Further, the SELA learning system features self-motivation aids for the learner. Work superiors are also offered support, for example through an information sheet for feedback.

15.5.4. **Avoiding trainer-centred instruction**

Age appropriate IT education should largely avoid classical trainer-centred instruction, as overly strong control by trainers and the associated pupils' role of learners may be uncomfortable for older employees (Neber, 1978).

Trainer-centred instruction is, therefore, reduced to a minimum in the SELA project. The participants are only given a two-day introduction to the SELA learning, its organisation and its functionality. Learners are also given basic guidelines for handling the user interface of the Excel spreadsheet software. Subsequent to this introductory assistance the learner autonomously improves his skills in the workplace by using the SELA learning board tools (Figure 15:4) at the workplace.

Figure 15:4 **SELA learning board**



Source: Straka and Spevacek, 1997.

Several tools in the SELA learning system support learner self-organisation without having to resort to traditional teacher intervention. The SELA learning system features:

(a) brief training on essential Windows techniques for basic skills development;
(b) a chat module that enables every learner to contact distant colleagues or tutors to ask for advice or to help others;
(c) references to specific sources of literature relevant for task content;
(d) textual and visual information on task-related topics;

(e) templates guidelines for the development of ideas about work results;
(f) a process tool that supports learner progress, in addition to content-related information;
(g) a comprehensive alphabetic and systematic information pool (glossary) that complements the help resources already available in software applications;
(h) a help tool for self-management, which includes tips and tricks for learning effectiveness and relaxing;
(i) elements to assist learners with individual learning assessment. This allows for constant evaluation and documentation of the learning achievements by the learner.

A crucial aspect of the supply of information is that it takes place not only in a particular work phase but is at learners' disposal as a permanent offer. They are the ones to decide which content is received, when, by which medium and through which external contact.

15.5.5. **Imparting learning strategies**

Various studies highlight learning difficulties among older persons that may be attributed to lack of adequate learning strategies (Schmiel and Sommer, 1991; Stentzel, 1986). It may be an advantage to reduce the transfer of contents (e.g. Excel) to benefit the imparting of methodological competences (learning strategies), which means making learning methods an explicit subject of training measures.

This principle is incorporated in the SELA learning system by giving the learner the opportunity to open a small methodology handbook in which learning strategies are accessible as printable information sheets. The handbook comprises learning strategies for the fields 'planning learning', 'processing information efficiently' and 'motivation'. As self-organised learning in the workplace requires both skills (such as to be able to schedule one's time) and dispositions (such as to motivate oneself), these learning strategies are explicitly made a topic of SELA.

15.5.6. **Provision of individual and cooperative learning phases**

Older workers prefer learning and teaching arrangements that allow individual and cooperative learning. Cooperative learning can help learners overcome their initial reservations against information technologies; older people, especially, wish to set their individual learning pace (Belbin, 1970).

SELA offers a learning environment that allows individual learning process organisation (selection of tasks, learning hours, learning aids) and does not

place learning outside a social context. In the beginning there is clarification in the department of what goal is to be achieved by means of the training programme. This is followed by individual learning in the workplace with the help of the SELA learning system. Learners work on tasks of their own choice that are relevant for the collaboratively developed learning objective. After this individual learning phase the result is analysed in the company. Communication with other learners or experts is maintained during computer self-learning through the chat mode. To make sure that colleagues are disturbed only when they agree, each user of the learning board enters their consulting hours and expert themes into the learning system. Alongside colleagues, who can be available as fellow learners only on limited occasions, experts can also be contacted via the chat. They are available as multipliers, tutors or trainers. The chat tool was created to supplement individual learning with a more social and communicative component. Having problems and talking about them is a didactic approach to deepening mutual helpfulness and promoting the frequently mentioned key competences.

15.5.7. **Age appropriate tasks design**

Age appropriate task design has to consider, above all, the following:

(a) older people are less suited to mechanistic, meaningless learning (Lehr and Wilbers, 1992). Therefore, tasks should be used that are very close to reality and have a strong reference to daily life and/or the world of work of older employees;

(b) tasks design should avoid both too high and too low demands (Staufer, 1992). As individual views on demand level can vary considerably, it is necessary to offer a broad range of tasks with different levels of complexity, and to adapt them to the specific needs of the individual older employee.

In SELA, there is strong orientation of learning towards workplace relevance. As pure memorising is increasingly difficult for the less familiarised older employee, the new contents are related to the life and work experience of the learner. The SELA learning process is based on work tasks of varying complexity that correspond to the immediate experience of the learner so that they are perceived as meaningful by older employees. The design of these tasks is usually jointly prepared by the participating enterprises. Each task has the structure of a complete work assignment, though further tasks largely integrate previous and additional new demands.

15.5.8. Organisation of topics according to relevance

Older employees are less familiar with the operation of computers and, therefore, often intimidated. In unknown situations they often experience negative emotions, mostly associated with fear. There is a risk of an excessive desire for security so they memorise as many commands as possible, which can lead to frustration and mistakes due to overload and confusion. To reduce or avoid this risk learners should receive guidelines as to which topics are relevant for them (Staufer, 1992).

The SELA learning system provides learning needs analysis at the beginning of the process. A simple computer-based survey analyses the learning tasks according to learner needs, initially presenting the learner with a selection of different characteristics of activities that are typical for the company. The learner can allocate them according to the importance he assigns to specific activities. This initial self-positioning within the context of the enterprise is followed by specification of learning needs. The learner selects those activities that are relevant for mastering work tasks and that may provide the content for further computer-related learning. The choices can also be made in cooperation with other learners in chat mode. Answering the questions results in an adequate number of individual work tasks.

15.5.9. Supporting motivation

Research findings suggest that the experience of autonomy, competence and social integration has an effect on readiness to learn in the workplace (Deci and Ryan, 1985; Deci and Flaste, 1995). Older learners' self-motivation can be encouraged by:

(a) giving learners the opportunity to self-initiate their learning, and by providing sufficient opportunities to exercise and deepen their knowledge (support of experienced autonomy);
(b) offering topic-related feedback and recognising learners' achievements (support of experienced competence);
(c) creating a team atmosphere and giving examples of cooperative interaction (support of experienced social integration).

In the SELA project learning takes place in close contact with fellow learners. The reflection and regulation of learning activities, which is helpful for the learning effect, can happen in a team-friendly way through conversation with other learners (experienced social integration). The collaborative development of learning tasks in the department, the individual work in contact with colleagues (chat), the joint evaluation of the things learned, and the associated experienced autonomy and competence, etc., create a

learning environment that can be experienced as a meaningful, complex, experience-generating and socially integrated learning event. This transforms assumptions of learning research for effective learning by older employees into learning practice.

15.6. Research design

Three enterprises took part. In company A, learning with the SELA learning system was supported by organisational development measures; companies B and C used no such measures for varied reasons (security concerns,

Table 15:1 **Positive shifts of means of the test group (pre-test versus post-test) compared to the control group (repeated measures ANOVA)**

Constructs (scales)	SELA learning system with organisational development measures	SELA learning system without organisational development measures
	Company A	Companies B and C
Sequencing Planning work steps Time-scheduling	sign. ($p < .05$)	
Resource management Non-personal resource management Personal resource management	sign. ($p < .05$)	sign. ($p < .05$)
Acquisition Structuring Elaboration Repetition	sign. ($p < .05$)	
Content-related interest Value component Expectancy component	sign. ($p < .05$)	

Source: Straka and Spevacek, 1997.

lack of interest on the part of the enterprises, etc.). Altogether 138 older employees worked with the SELA system in their workplace for a period of four months (test group) or participated in a traditional course (control group). From these, 91 persons (46 from the test group and 45 from the control group) could be included in the data analysis. The results of the survey are summarised in Table 15:1.

The table shows a positive and significant change in non-personal resource management for companies B and C. The employees who worked with the SELA learning system stated that they obtained information on particular software programmes from different sources more often and that they also used computer-based learning assistance more frequently. The same trend was expressed in the answers from company A. The staff members of this company differed from the others in terms of time scheduling, elaboration and the expectancy component of the content-related interest. Compared to the initial survey they indicated to use self-set time frameworks for the work on IT assignments and to fix breaks (time scheduling) themselves significantly more frequently. They also significantly more often reflect on how to use the acquired computer knowledge for mastering work tasks and how to link the knowledge with their previous computer experience (elaboration). In addition we found an increased expectation of acquiring knowledge concerning the opportunities in Excel to work with databases and to calculate spreadsheets.

15.7. Interpretation and contextualisation of results

The results emphasise the importance of organisational development measures with regard to the change in the readiness and capacity for self-organised learning in information technology. Although the companies can be compared only with reservations, owing to their differences, the results indicate that self-organised learning is directly linked to organisational culture. For instance, in company A:

(a) measures to promote acceptance were put in place at all company levels (management, employee representative council and all lower levels). The aim was a broad consensus on the application of the learning system;
(b) a workshop and individual talks with the managers created the basis on which learning with the learning system could be explicitly understood as part of the work process. They also reinforced the idea that supporting these learning processes is explicitly recognised as human resource development of work superiors;
(c) the managers were offered guidelines in the SELA learning system or in workshops, for example on the topics ‘concluding performance contracts’ and ‘giving feedback’.

After the pilot study the learners in company A assessed their self-learning competence, in terms of the capacity to make time-schedules for their learning, as higher than before the project. This shift of perspectives can most likely be attributed to several features in the SELA learning system:

(a) learners are offered tools for effective time management, for instance in the little methodology handbook;
(b) the SELA learning system allowed for learners self-assessment, for example by means of the self-learning check that informs the learner how much of the learning assignment has already been completed;
(c) subsequent to the individual learning needs analysis there was a discussion with the head of the department, in which the learning contents and associated time restrictions were discussed.

The increase in the perceived degree of 'non-personal resource management' can be interpreted as an indicator of the effectiveness of the following features of the SELA learning system:

(a) references to specific sources of literature relevant for the contents of the tasks in question;
(b) textual and visual information to task-related topics;
(c) comprehensive alphabetical and systematic information pool (glossary) that complements the help resources already available in software applications.

The results on 'elaboration' show that the learners rate their ability to relate IT contents to their previous knowledge and experience significantly higher than before. The SELA learning system allows for a high degree of learner participation in all phases of collaborative needs definition up to the stage of cooperative problem-solving, which can be highly relevant for the generation of meaning and for learning. This procedure is particularly consistent with the learning styles of older people. Whereas pure memorising is relatively difficult for older people, new contents can be learned if related to their own life and work experience, as is the case in the SELA learning system. For instance, to ensure correspondence between learning assignments and workplace conditions, the assignments were checked in advance, in collaboration with the company departments, so that the assignment pool of the learning system adequately represents the real demands and requirements of the workplaces.

The increase in 'content-related interest' has to be interpreted as a relatively high acceptance of the SELA learning system. People who learned with the SELA system had more confidence in their ability to understand IT contents compared to those who had participated in a conventional IT course.

However, these results, and the conclusions they suggest, should not be overrated. On the one hand there is not always a significant increase in the individual estimation of personal use of learning and working techniques. This might be attributed to the fact that these processes often operate automatically (Aebli, 1987) and in a firmly rooted way. Especially in the case of older and experienced adults, implicit rather than explicit agency has to be expected. A business clerk, during the presentation of the results of a study on self-organised learning that took place already some time ago, put it as follows: 'there can be different opinions about the questions in your questionnaire, but what I realised when I filled it in, and what I did not know before, is that I must have learned quite a lot in the past year. In the meantime I can handle my computer quite well, somehow I must have acquired these skills'. The reflection of this statement within the group showed that many respondents had similar thoughts when filling in the questionnaire. It became obvious for us that it was only through answering the questionnaire that respondents became aware what they had learned (Straka et al., 1992), which later motivated us to label this type of qualification 'for they know not what they are doing – learning in the process of work' (Straka, 2001).

This chapter mainly refers to the 'what' of the things learned. It is much more difficult – especially in the case of adults – to bring the 'how' of learning to the surface and to make it explicit to the learners themselves, leaving aside the motivational problems in this sensitive area. Who is completely aware of his learning strategies and is also willing to make this publicly known? Therefore, the LOS research group has developed a 'three-level model of criteria-based reflection of individual agency with decreasing moderation' (Straka and Brede, 2000). It starts with cases in which activity and learning in the process of work is described, which takes place in a way adapted to the specific conditions of the company if possible. These cases are surveyed using inspections and inventories in the companies. They are analysed by the learners according to criteria derived from our modelling of self-organised learning. When common understanding of working and learning techniques has been achieved, the participants are asked to describe on their own a case they came across in their lives. The production of individual cases can even include production of a video, which is subsequently analysed by the other learners according to predefined criteria. When the emergence of a basis for mutual trust becomes apparent that allows for 'self-disclosures' in one's own learning and agency, participants are encouraged to report about successful and less successful working and learning techniques from their

own situation. This exchange can even lead to the conclusion of 'learning contracts' with the training staff, which specify what changes have to be achieved, by what time, and how these may be evaluated.

The revision of learning and working techniques requires a good deal of patience and perseverance from all participants, not the least because internal assessments of mental costs and the expected benefit fairly often lead to the result that one is doing well with the 'dilettantism' applied in the field in question. Why, therefore, this troublesome revision of learning and working techniques, which might yield some returns at best in the long term, just for the sake of increasing the efficiency of this learning in the workplace that is currently so favoured by various actors? Would it not be more comfortable to wait for an appropriate opportunity for formal continuing training? Perhaps Marcel Reich-Ranicki, in his autobiography, takes a similar stance when he writes: 'I began thus as an autodidact – and continued to be an autodidact. […] What I can do I learned on my own. I am not proud of it, and I do not recommend it to anybody for imitation. I acted out of necessity, not my own inclination, when I became an autodidact' (Reich-Ranicki, 2000, p. 204). It cannot be expected that self-organised learning automatically becomes a success. Nevertheless, this pilot project provided the chance to test measures of adult education and to specify and empirically prove the conditions related to the organisational culture of enterprises, which might, in the long term, succeed in making self-organised learning a fast-selling item.

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16. Older workers, older learners: the contribution of employers in the British East Midlands

Vanessa Beck

ABSTRACT

This chapter reports findings from a research project funded by the East Midlands Learning and Skills Council, which investigated the relationship between involvement in learning and the retention of workers in the labour market. The focus was on employers, their knowledge and understanding of an ageing workforce and their responses, in particular whether learning formed part of the response. The findings are disappointing in that learning does not figure significantly, even though employers have a certain degree of knowledge about the age of their workforce and the implications this might have for their businesses. Due to the lack of results on the main aims of the project, attention was subsequently turned more generally to learning opportunities and working conditions within the companies interviewed. Here, surprising findings emerged. Although not conceived by companies to benefit older workers, many of the policies and working practices already in place could be considered either good practice and/or could be adjusted to benefit older cohorts within the workforce.

16.1. Introduction

The change in age profiles among European populations is a well-known and well-researched phenomenon. We know that our societies are ageing and that this will necessitate changes in societal structures, attitudes and labour markets (inter alia Marin and Zaidi, 2007; Loretto et al., 2007). As other countries, the UK is enforcing an extension of working lives by increasing the age at which the entitlement to State pensions arises. Although such changes might be in line with lengthening life spans, there has been concern about changes to what might have been perceived as the right to retirement at 60/65 for women and men. Though the numbers of those in employment in the 50+ age bracket, and especially in the 65+ bracket, have been increasing, they remain comparably

low (Parry and Taylor, 2007). For one region within the UK, the East Midlands, this means that 80 % of the workforce needed for 2012 is already in employment (Emda, 2006a). In light of the pressure to maintain the size of the workforce, without past or current levels of inflow of younger workers, the reasons for and mechanisms by which individuals retire become all the more important. They are crucial in understanding what can be done to retain older workers in the labour force up to and past State pension age.

We already know that the factors in play at the end of a working life are complex. Despite the importance of a range of other factors discussed in this chapter – including the lack of incentives to carry on working and potential difficulties when facing unwilling or ill-informed employers – financial security is a fundamentally important consideration (DWP, 2006). Previous research has shown that a significant proportion of those working past retirement age do so because they cannot afford to stop working (Parry and Taylor, 2007; Vickerstaff, 2006b) and this situation is confounded for those who have been made redundant late in their working lives or have been on unemployment or sickness-related benefits such as (up to 2008) incapacity benefit (Loretto and White, 2006; Mitton and Hull, 2006; Pendleton, 2006). The current recession and impact on pensions may further enhance the economic need for longer participation in the labour market. This was reflected in some responses by employers as part of this research.

In addition to potential financial worries, there is evidence to suggest that older workers face discriminatory practices (Duncan and Loretto, 2004). Part of the problem is that there is no generally accepted definition of what an older worker is. This project used the 50+ category, which also tends to be the UK government definition. However, current research revealed considerable sectoral differences and these are mentioned where appropriate. Discrimination includes practices within the employment interview itself (Morgeson et al., 2008) but also in promotions, training opportunities, general attitude towards older workers and instances of redundancy (Duncan and Loretto, 2004). In contrast, there has also been research to show that positive attitudes towards older workers exist. In particular, there are perceptions of older cohorts being more productive and reliable than younger workers (McNair et al., 2007; Walker and Maltby, 1997). These contradictory results are difficult to explain, though it could be argued that they suggest differences between sectors of employment, hierarchical level of the individual older worker, occupational status and difference between rhetoric and reality. Therefore, it might be important to differentiate carefully between sectors, skill requirements, skill provision and individual organisational contexts, to

allow better understanding of what problems older workers face and how they might be addressed. This chapter aims to provide better understanding of employer knowledge and activities of older workers.

Two further, central aspects to consider are the overall orientation and motivation to work, which might be summarised as distinct 'work identities', and the locus of control over retirement decision. In their study of the reasons why people work after State pension age Parry and Taylor (2007) distinguish between (self-defined) 'workers' and 'professionals and creatives'. They conclude that 'while the workers displayed a strong work ethic, they also saw retirement as the time when they could leave the employment treadmill, relax and enjoy life' whereas 'professionals and creatives were more committed to their work and saw less distinction between work and other aspects of their lives' (Parry and Taylor, 2007, p. 595). Professionals and creatives were thus more likely to continue work after State pension age. The distinction highlights the importance of categories such as gender, class, location and socialisation in the normative perception of retirement.

The amount of control individuals have over their retirement may be related to their work identity, in that there seem to be two groups who have an ability to determine more flexibly how and when to stop working. Those with higher skills, qualifications and, subsequently, higher pay (e.g. in managerial jobs or the professionals and creatives mentioned above) and those with manual skills or in routine occupations with lower pay are more likely to have possibilities for part-time work and a 'phasing-out' rather than experience the 'retirement cliff' as described by Vickerstaff (2006a). A study into attitudes to work (McNair, 2006) found that among the economically active in older age groups (50+) 80 % were interested in employment or unpaid work, while 48 % would like to continue in paid work after formal retirement, though this would usually not be full-time. Overall, the suggestion is that most older people do not have enough control over the time and manner of their retirement (Loretto et al., 2007; Vickerstaff, 2006b; McNair, 2006). These findings highlight contextual factors such as the organisational setting and attitude of the employer, which might not, in all cases, be conducive to individuals making their own, free decisions regarding retirement.

This gives us good understanding of the complex situations older workers face in the labour market towards the end of their working lives. What we know less about is how these complexities break down in specific social, sectoral and occupational contexts. These categories may relate to distinct work identities, with implications for financial security and, therefore, the necessary preconditions for retirement. There might also be different settings

in the recognition of and value attached to older workers, allowing different amounts of control and autonomy over different aspects of the retirement process. Further, we know little about the role that learning plays in these processes. Just like any other worker, older workers require access to learning and training opportunities to allow them to keep up with developments in their field of work. The common perception, however, is that older workers are given less access to learning and training because employers may fear they will not receive a return on such investment (Mayhew et al., 2008; Brooke and Taylor, 2005). This argument does not consider the long-term implications of the decision not to invest in older workers. It might be that older workers are more reluctant or lack motivation to remain in the labour market due to the lack of such investment. It could be argued that older workers require more training and learning to compensate for their knowledge and skills being dated. However, given the experience they have accumulated throughout their working life, their overall knowledge and value to a company may be significantly increased. According to some of the interviews for the current project, however, employees might not necessarily feel that they require training and learning opportunities either because of the wealth of their experience or because they intend to withdraw from the labour market.

The research on which this chapter is based set out to investigate the role of learning in retaining older workers and enhancing their motivation to carry on working up to and beyond State pension age. The aim was to consider the impact of these issues on replacement demand. The research was funded by the East Midlands section of the Learning and Skills Council (LSC), a national body with the key aim of improving workforce skills. Their central interest in learning is reflected in the main aims of this project. The work was undertaken in the East Midlands, traditionally seen as a region characterised by low skill and low pay, trapped in the low skill equilibrium (compare Emda, 2006a; Emda, 2006b). This holds particular challenges vis-à-vis the loss of experienced and/or skilled older workers. The sectors chosen by the LSC for this investigation are construction, engineering, health, logistics and retail, all of which contribute significantly to employment and GDP of the region (LSC, 2008). The range of these sectors show how far the East Midlands has moved away from its traditional image as a manufacturing and coalmining economy and that efforts are being undertaken to improve workforce skills. Although the findings on the original research questions for this project are limited, this chapter argues that there are many wide-ranging practices in place that could help the sectors under investigation to adjust to the changing demographics of the labour force.

Following this introduction are the details of the research conducted, starting with an outline of the research project and its methodology. The next three sections provide an overview of some of the research findings. Initially, employer awareness of demographic developments and the implications for their specific sectors and companies are outlined. Considering that awareness is limited and that learning hardly figures as a strategic tool in the responses, existing practices were analysed for their usefulness and transferability to older workers. Following a short section on learning as a tool for an ageing workforce, the results on existing practice are presented as a means to establish potential good practice. Finally, conclusions are drawn.

16.2. Methodology

The results presented in this chapter are based on research investigating the relationship between involvement in training and learning opportunities and in the labour market. The research aims to make a contribution by shedding light on specific sectoral contexts in the East Midlands in which employers may make decisions whether or not to involve older workers in

Table 16:1 **Overview of interviews conducted**

Sector	Sector skills councils	Employers	Other	Total
Construction	1	3	1	5
Engineering	1	5	0	6
Health	1	6	1	8
Logistics	1	2	1	4
Retail	1	3	0	4
General	0	0	5	5

Source: Author.

learning and training opportunities. The aim of this research project is to establish the basis for planning employer engagement and the promotion of learning opportunities for older workers, plus to lay the foundations for better understanding of the situation older workers face in the labour market. The focus was on the views and perceptions of employers: who would they consider to be ‘an older worker’? Are there older workers in the company and, if so, what opportunities or problems might this create? What value is placed on the experience that is gained with long service in the company and what implications does this have for training and learning? Are there

any strategies or policies in place for older workers or to respond to the changing demographics of the workforce?

The first stage of the project was a literature review to cover the national and region-specific state of knowledge of older workers. Following this, the work concentrated on the regional and sectoral level. The five sectors included in this project all play a considerable role in the East Midlands' economy: construction, engineering, health, logistics and retail. The main stage of the research, conducted from June to August 2008, consisted of 32 semi-structured interviews (see Table 16:1 for a full breakdown). In each sector, a conversation was held with the sector skills councils responsible for most workers in the sector: construction skills, SEMTA (Sector Skills Council for Science, Engineering and Manufacturing Technologies), skills for health, skills for logistics, and Skillsmart Retail.

Established since 2002, the sector skills councils have been given an ever larger remit, though according to Payne (2008, p. 98) they have four core strategic goals: 'to reduce skills gaps and shortages; improve productivity, business and public service performance; increase the opportunities to develop the productivity and skills of everyone in their sector; and improve learning supply through the development of apprenticeships, higher education and national occupational standards'. The sector skills councils were intended to be employer-led but many of the 25 have reduced their employer engagement strategies to be more 'strategic and targeted' (Payne, 2008, p. 105). None of the sector skills councils had specific policies on older workers or the changing labour force, though the health and retail interviews and literature show evidence of more engagement with the subject matter. Depending on the extent of strategic targeting undertaken, sector skills councils were more or less able to provide contacts to employers. The health sector stood out as having the best links and connections with employers.

A range of employers was contacted in each sector to take part in the research. The aim was to obtain a reasonable spread in terms of the location, sector of activity and size of the organisation but it was generally easier to win over larger employers to participate. Nevertheless, several small and medium sized organisations were also interviewed, the smallest employing three individuals, one of whom was 63 years of age. Employers were contacted by a range of methods. The LSC has many contacts and these were utilised, even though this meant that many of the interviews were 'the usual suspects'. The sector skills councils provided some contacts but, again these were, in the main, employers who regularly participate in regional and sectoral activities. Some employees were contacted via personal networks. Depending

on the size of the company, the interview was conducted with the managing director, a human resources specialist, or a regional manager in the case of larger companies. Interviews covered background questions on the company, such as the area of activity, size, and proportion of older workers; issues regarding older workers in the company; and a range of questions on the learning and training provisions within the organisation.

The routes through which employers were contacted meant that the sample for this study was not necessarily representative, with many participants being employers who are part of the strategic and targeted work of the sector skills councils. In construction, none of the interviewees use subcontracted labour, a very unusual situation for the sector. Therefore, it is assumed that there is some bias in the sample that provides us with an insight into the more proactive and socially aware section of employers. In addition, there is always the fear that there is a dichotomy between the public face and reality, meaning that research results can be artificial. As questions on this issue were not part of the research design, no relevant findings or indications can be presented.

Several general conversations were conducted to provide the context to this study, though a wide range of activities had previously been undertaken concerning the older workforce in the East Midlands (Farmer and Soulsby, 2009) and it was important not to replicate this work. Conversations between 10 and 90 minutes were held with individuals based at NIACE (National Institute of Adult Continuing Education); TAEN (age and employment network); GOEM (Government Office for the East Midlands); EMDA (East Midlands Development Agency); and the LSC (Learning and Skills Council).

Most interviews were conducted on the phone, took approximately 30 minutes and were one-to-one conversations. They were taped and transcribed for analysis. All interviewees were offered anonymity but were also given the opportunity to be named so that good and innovative practice could be showcased. In the following sections, we turn to the findings from these different strands of the research process.

16.3. Awareness of age and implications

Generally, interviewees displayed a reasonably high awareness of demographic trends. Age, work and pensions have all been discussed publicly in some detail, though, in the main, the discussions centre around legislative changes to the retirement age (BBC, 2008). Employers were aware of the public debates concerning this issue but, in most cases, this did not

translate into considerations about the implications for their sector. There was little mention of how demographic changes would influence recruitment patterns, training patterns, replacement demand and, potentially, demand for specific products or services. However, there were sectoral differences, with the retail sector being especially aware that a change of attitude was necessary, and the health sector starting to think what better provisions could be put in place.

The three other sectors, construction, engineering and logistics, seemed to be recruiting through traditional routes, often including apprenticeships and training schemes. This year, ConstructionSkills (sector skills council for construction) issued a press release warning of a 'workforce time bomb' (ConstructionSkills, 2008) but the main response to the increasing age of the workforce seems to be to offer more apprenticeships and training places. Given previous findings that adult recruits are not favoured for apprenticeships (MacKenzie et al., 2000), it is assumed that most recruits are sought among young people. The situation in engineering is different, mainly due to the fact that high qualification requirements mean engineers in general are older, thus leading to a more widespread acceptance of older workers. Nevertheless, recruitment is mainly sought from a younger age pool and the demographic change occurring in the population at large is not being considered in depth. There are, however, signs that the overall demographics of the pool of available labour are changing. One large engineering company based in the East Midlands expected to have the proportion of their workers aged 50+ increased from currently about 35 % to 50 % in the next five years. They stated that: '[…] it also reflects the general age demographic profile for manufacturing engineering in the UK. So that in the market place we are finding the same thing. Even though we have recruited significantly into those areas in the last two to three years, we've found we've recruited in the same demographic profile'.

While this in itself is not necessarily a problem for the company, there was concern about how replacement rates would change and the succession planning that might be necessary as a result. So far, there is no strategy or policy in place to address this.

The engineering companies interviewed had positive attitudes towards older or more experienced workers. Experience tends to be very important in producing quality, ensuring safety and delivering on time, and this was reflected in the recruitment practices of the interviewees. As one respondent stated: 'I wouldn't think twice about employing somebody over 50 years old'; this statement is representative for most engineering organisations (Wiseman

and Harrington, 2007). However, age and experience are considered depending on the job and expectations: 'If we're looking for an apprentice we're not looking for somebody 50 years old. And when we're looking for someone to lead one of our businesses, we're not looking for somebody 18 years old. So in that respect yes, but in general I don't think it matters. Like I say, I think it depends what role they're trying to fill and […] when we bring somebody in of an older age, we want them to add something to the business. Somebody of a younger age, we're looking to support and train them'.

There is an indication here that training and learning opportunities are intended for younger workers, without necessarily being aware that similar structures may also be important for older workers. For various reasons, the health sector has to be more aware of the age of its workforce. This may, in part, be due to increased awareness of the ageing population and its effect on the sector, both in terms of the future service demand and regarding their workforce (Skills for Health, n/a; Darzi, 2008). However, as one respondent outlined, awareness of demographic changes results more from workforce planning requirements than attempts to retain workers: '[…] most organisations are very aware of their ageing workforce profile and for workforce planning purposes will track their current and potential retirements. This influences the commissioning, i.e. the need to train more, adapt current roles and factor in the idea of flexible retirements. The National Health Service (NHS) workforce has a growing number of staff aged 55 and over, and the challenge is to incorporate that into more part time or flexible working arrangements'.

Irrespective of the reasons, there is awareness that the health sector has an ageing workforce and that this could potentially create problems. Health has experienced employment growth and is expected to have a high replacement demand ratio. For the East Midlands, it is estimated that the NHS will need to replace approximately 59 % of the professionally qualified clinical staff, for example nurses and physiotherapists; 63 % of clinical support staff; and 60 % of NHS infrastructure staff (including administration, clerical and managers) (Skills for health, 2008). One specific example of awareness of demographic changes in the workforce is the preretirement course run by Northamptonshire Teaching PCT (primary care trust). The PCT's training department targets those who are thinking of retiring in the next 10 years. The topics covered during the session include credit history, equity release, State pensions, savings and investing, taxation and wills and inheritance tax. The advertisement for this course emphasises the financial nature and the course objectives are to have understanding of managing your money, claiming your pension, reducing your insurance costs and saving and investing with confidence. The fact that these

courses are oversubscribed is testament to their importance. Despite the financial nature of the course, there is scope for additional information, or sessions on the possibilities for flexible retirement and/or working past State pension age.

Whereas the health sector has started to look at replacement demand and the need for succession planning, the retail sector is probably the most advanced in terms of considering the extent to which entire mindsets have to change in response to demographic developments. There is recognition that it is expensive to replace even junior retail workers and that younger workers have higher turnover rates than older workers (Urwin, 2004). Yet, like most industries, retail seems to concentrate its efforts on recruiting younger people. However, a previous study on the retail sector in the East Midlands (Hart et al., 2007) considered the reduced pool of younger people who traditionally fill many retail vacancies in light of the increase of opportunity this created for more qualified young people. They predicted a further reduction in the skills levels of entrants into the retail sector, placing pressure on an already (on average) poorly qualified workforce. The changing characteristics of entrants would further support strategies already adopted by large companies such as B&Q (a large home improvement and garden centre retailer) who recruit older workers for their product knowledge, experience and skills. Concerns were voiced, however, that such strategies would be harder to adjust to by small and medium sized companies. Equally, the sector skills council, Skillsmart Retail, suggests that it is likely that employing older workers is going to be a key strategy for the future as this age group increases at the same time as younger age groups are in decline (Skillsmart Retail, 2007). This is especially important because the retail sector has failed to train its older workers (Wheeler, 2006). Overall, in terms of older workers, there is the need for a sector-wide change of mindset to accommodate lifelong learning as a reality.

The interviews revealed that there is awareness of the problems and some opportunities related to the ageing of the workforce. The extent to which this influences the day-to-day practices of employers in different sectors varies considerably. What is clear is that there are no specific policies offering learning or training opportunities to older workers. In some sectors, such as health, this is driven by the (perceived) restraints of legislative requirements. In a sector such as construction, there are concerns about the physical ability of older workers to fulfil their job, though others insisted that technological developments no longer make this a problem. Yet in construction, as well as in logistics, traditional entry routes are still dominant. Despite significant problems with, and almost constant changes to, the apprenticeship and national vocational qualifications system, employers mentioned these as dominant recruitment methods.

Interviewees in all sectors showed understanding of age as an issue that they would have to face. Employers suggested that they had a significant minority of older workers with their proportion reaching almost half in some organisations. This research suggests that some employers and their older workers have found ad hoc ways in which to accommodate age specific issues. Following general questions about age, demographic issues and implications for the organisation, interviewees were asked about learning opportunities for older workers. As already indicated, there were few positive responses. There were thus few results on the original research question posed by this project as employers do not see learning as a significant factor for older workers. Only three examples were found where there seemed a direct relationship between experience, length of service, training, and the extension of working lives. These examples are briefly outlined in the next section. Within the following examples, it is length of services rather than age *per se* that has stimulated concern over skill gaps.

16.4. Learning as a tool for an ageing workforce?

Requirements and justification for specific training and learning for older workers were sector and occupation specific. While such policies might be generally transferable, it requires a detailed examination of the need for and added value to the sector. In the retail sector, for example, it was basic skills that were especially mentioned as a particular problem. The sector skills council, Skillsmart Retail, was keen to develop alternative routes to qualification for workers who, while not necessarily older, had been working in the sector for some time. They aimed to address literacy and numeracy issues via the development of an alternative level 2 qualification which would introduce more personal learning and thinking skills, and confidence and self-esteem building. While such qualifications could directly benefit older workers who have been working in retail for some time, it is not clear whether the potential for extending a working life has been considered.

More specialist skills are required in the health sector and the following example provides a solution to a very specialist skills dilemma. LOROS (Hospice Care for Leicestershire and Rutland) and the University of Northampton jointly developed a certificate in higher education (palliative and supportive care) to address a serious gap for employers. Excellence and quality in end of life care is a high priority and largely dependent on the appropriate workforce skills and knowledge. Support workers, as front line

carers provide much of the end of life care. However, such staff are often not offered the opportunity to develop their skills. This certificate is aimed at support workers such as nursing auxiliaries, healthcare assistants or community support workers. LOROS had discovered that many of these workers had been in their posts for many years, were therefore older and, often, had not had access to any form of education. Flexibility is crucial to their ability to access education due to family and/or care responsibilities and their jobs, so the certificate in higher education was designed as a flexible programme, including work-based learning and taught sessions (LOROS, 2007). The success of the scheme has so far been limited. Most students have been older, of middle age and upwards, and most are new to formal adult education, thus indicating that the target groups have been reached. Despite the flexibility of the course, juggling work and families proved a particular challenge. The numbers signing up to the first cohort were disappointing though there have been many expressions of interest. Funding is seen as a major barrier to people accessing the course.

In addition to these specialist examples of learning and training, a further more general and, possibly more widely applicable, example was provided by the health sector although not specific to older workers. The Nottinghamshire health and social care community workforce team established an interprofessional learning manager role to promote and introduce inter-professional working and learning. This includes the large proportion of the workforce that is unqualified or support staff, but also medical staff. For example, a nurse, physiotherapist, occupational therapist, doctor and pharmacist would be brought together to learn and work together on particular cases. Given the extensive changes and developments in the health sector, it is important for staff to understand one another's roles in health and social care. This is especially the case when considering that there are considerable differences between what might be learnt in an academic setting and how knowledge is used in working life. Such interdisciplinarity is also starting to occur in preregistration and training where universities offer lectures across professions.

While this example does not refer specifically to older workers, there is potential to build on the experience and expertise of those who have worked for significant amount of time. There is space for informal learning and for drawing on the experience and expertise of older workers. These three examples were isolated and, in the main, employers do not consider learning as a means to address the issue of age in their workforce. Once this was established in any given interview, questions shifted in emphasis towards existing practices and policies on learning and retention within

participating companies. Surprisingly, and despite the insistence by most respondents that they did not have any specific policies for older workers, several existing practices are either directly beneficial to older workers, or have the potential to make a significant difference to this cohort of workers. The next section, therefore, goes on to outline some of the existing practices that were analysed with a view to age management policies: the importance of experience; the use of flexible or part-time work; flexible retirement; assessment or mentoring roles; and benefits.

16.5. Transferable practices

As is evident from the following examples there are indications that employers use the experience of older workers to retain knowledge and skills in an organisation and to pass on knowledge and skills to younger workers. Some organisations are able to retain older workers after retirement age. Some, especially in engineering, remained full-time but the extension of working life tended to correlate with flexible or part-time work. This finding supports previous research on the importance that retaining control over the time and circumstances of retirement has (McNair, 2006). In the following example from the logistics sector, this is done via temping agencies: 'most of the people who are over retirement age did not work here before they retired. They came here after retirement age and through temporary agencies. They worked here with temporary agencies first and we took them on a part-time basis, permanently. […] So most of the people who are over 65 are only part-time, most of them have done other more involved jobs previously. They now come in and pick and pack or work in the post room, processing mail for us. […] The over retirement age people have a review meeting with the managing director once a year, where they discuss any issues they have and whether they want to carry on working'.

A further example this time from the engineering sector shows a less structured approach by which it is also possible to retain expertise when individuals have retired. This mechanism could be a means to retain skills on an informal basis or could, potentially, be formalised into a system of flexible retirement: 'the issue we get is the immediate loss of huge experience in particular areas of in-depth knowledge. Fortunately, many of our staff are local and retire locally. If past employees are only down the road and relationships are strong then it's not unusual for us to pick up the phone and ask one of the guys to pop in for a couple of days. I think as long as your relationships

are strong and you treat people well, this flexibility is important. […] But again, the small and medium business can cope with this flexibility'.

This interviewee made it clear that flexibility is a luxury available to SMEs, but which might not be as easily instituted in large organisations. One respondent from a large organisation indicated that if early or flexible retirement was offered to one employee, there was nothing to stop all other employees asking for the same deal, which would not be financially viable for the organisation. Financial considerations affect both employer and employee. When queried about reasons why individuals carried on working after State pension age, respondents indicated two distinct factors. First, some cannot afford to retire because they still have a mortgage or other financial responsibilities, thus reinforcing the centrality of financial security (DWP, 2006). Second, some feel that they would get bored if they were at home all day. This highlights the importance of being able to undertake work that is physically appropriate but also challenging and interesting. Different methods were mentioned in which this could be achieved, including assessment or mentoring roles within a company or profession.

An area of work that was repeatedly mentioned was to ensure retention of knowledge within companies, that is, to use the experience of older workers and give them the opportunity to pass it on to younger workers. As the following quote from the construction sector suggests, this can be done via the role of assessor or mentor: 'I do not have a hard and fast case study, but older workers could undertake assessor training, so that they can assess, building on their experience, become a qualified assessor or workplace mentor to support the younger workers. So the experience is not lost, but they might not necessarily be doing the managerial aspect, but they're still keeping their skills within the company'.

Involvement in mentoring has previously been suggested as a means by which older workers can help resolve human resources issues (McNair et al., 2007). In construction this retention of knowledge and skills is especially important at the moment, following redundancies in the national economic decline, especially in the housing sector. Interviewees in both construction and engineering were concerned that they would lose skills and knowledge irretrievably through having to make individuals redundant. A further suggestion of a new position that was meaningful and built on experience was suggested in a health sector interview. Here it was emphasised that it was crucial to have individuals who had knowledge of and understood the system, and that such individuals could make a significant difference to both employees and users of the health service: '[…] people are talking about new roles

which are like patient trackers or navigators where you have people that actually help patients navigate through the system. The health care system can be very complicated. And maybe that's a role where what you need is an experienced person who's got a breadth of knowledge'.

The size of an organisation is important to different practices, resulting in distinct constraints and opportunities. The quote provided above indicated that small and medium sized companies can be more flexible in some respects whereas large companies may have more opportunities for multi-skilling and reward systems. Bigger organisations were more likely to be able to offer a range of benefits to long-serving employees, providing an incentive to stay in work longer. As part of these benefits, respondents mentioned shares being available for employees, discount schemes, leisure facilities, holiday centres available at reduced rates, and a one-off paid leave period available as a reward for long-term service. One construction organisation had introduced benefits as part of a membership organisation: 'we've got something called the Quarter Century Club, which is for people who have worked for the company for 25 years or over, and once they have done their 25 years they get invited to the club and they have a do every year and, bits and pieces go on. Once they retire they are still allowed to be part of the club and go to the party. There's about 250 members at the minute. And that is quite a big thing. People will ask to stay on until they can get into the club. That's still quite big, if they are due to retire before their 25 years, they will ask if they can extend it in order to get into the club'.

Finally, one interviewee outlined a complete work organisation model. This is not aimed expressly at older workers but at smooth working processes and, therefore, ultimately, increased productivity. There is, nevertheless, a clear assessment of individuals' work situations which seems to include important aspects of what is known as the 'workability' model developed in Finland. Workability is the holistic approach to work, life and home responsibilities (Maltby, 2007) with Finnish research indicating increased productivity and extended working lives as outcomes of such an approach. Toyota's approach of designing smooth work processes is an interesting example of how careful consideration of working conditions should not only improve the health of the workforce but could also enable and/or motivate individuals to work longer. It would, further, be interesting to consider how such a system could feed into a learning and training needs analysis and be combined with a proactive age management approach.

'What Toyota does is to systematically assess the job based upon what kind of body movements and forces are necessary, resulting in a detailed

ergonomic assessment. The result is a rating of the physical demand of any given job. Toyota's approach is to gradually reduce the rating so that there is a wider range of people that could be doing that job. The key objective is smooth work and elimination of ergonomic, Muscle Skeletal Syndrome (MSS) type issues […]. Each individual is assessed at regular intervals. By having a systematic way of assessing each job according to physical requirements and assessing each employee based on the same criteria, Toyota is able to decide the most appropriate placement for each individual and understand any implications of changes to either the job or individuals' medical condition' (LSC, 2009).

16.6. Conclusion

This chapter has outlined findings from a small study into the relationship between involvement in learning and motivation to remain in the labour market. The project determined to understand employers' perceptions of the issues involved as well as their contribution to retaining older workers in employment. While the results on learning in particular are disappointing, the interviews conducted as part of this research revealed interesting transferable policies.

Employers displayed a general awareness of the ageing of society and the workforce in particular. To some extent, it would have been surprising had they lacked this awareness as most of the sectors involved in this study face considerable replacement demand due to an ageing workforce. This brings with it visible problems with some specialist skills, such as in the nursing profession, and in occupations such as heavy goods vehicle drivers where there are concerns that replacement demand cannot be met. There seemed to be no policies or plans to respond to these shortages. In sectors such as construction, engineering, and logistics the main recruiting mechanism is still via apprenticeships and training places, especially for the young. Where there is more awareness of the ageing workforce, and this is paralleled by a higher proportion of older workers as in the health sector, the need to address ageing has arisen from workforce planning requirements. Attempts to keep on older workers and retain their skills and experience are less evident.

Despite these difficulties, learning plays a role in some aspects of the work practices under consideration. In the retail sector, training courses are being designed to address the generally low skill and qualification levels of those who have worked in the sector for some time. In the health

sector, there are attempts to improve support worker skills to fill the gap for specialist skills. In both of these examples, older workers have been direct beneficiaries. More generally speaking, the health sector provided opportunities for interprofessional learning, thus highlighting the importance of the type of experience that might be accumulated with long service in the labour market.

In addition to policies and practices on learning, employers interviewed for this research also revealed aspects of their companies that, indirectly, could be useful for older workers. None of these were designed specifically with age in mind, though their appropriateness for age management is striking. Examples here included the use of flexible or part-time work; flexible retirement; assessment or mentoring roles and/or involvement in apprenticeship training; benefits such as the quarter-century club; and a workability scheme where the overall strain of a job and health of the worker is periodically assessed. With these types of schemes already in place, it is suggested that it is more a matter of changing the mindset of employers to adjust to the ageing of the workforce. Here, societal and political developments will be crucial. Although the ageing of the population is increasingly discussed in public, there has not been an open and transparent discussion on the advantages and disadvantages that individuals, society, the economy and the country as a whole will have to face. Beyond changing the age at which the State pension can be claimed, there has been little political will to address the imbalance between a shrinking workforce, market forces requiring ever increasing profit, long working hours, and workforce ill-health. What might be required is to reconsider the balance between education and training, work ratio and span, and lifestyle. In this context, further research should investigate how career deceleration can be managed to benefit all parties involved.

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List of abbreviations

HRD	human resources development
HRM	human resources management
NRA	normal retirement age (UK)
SELA	*Selbstorganisiertes Lernen älterer Arbeitnehmer und arbeitsplatzbezogenes Lernen* (self-organised learning of older employees and workplace learning)
SPA	State pension age (UK)
VERP	voluntary early retirement pension (DK)
VET	vocational education and training

Country names and codes

The order of protocol for the Member States is alphabetical, based on the original written form of the short name of each country.

BE	Belgium	**NL**	Netherlands
BG	Bulgaria	**AT**	Austria
CZ	Czech Republic	**PL**	Poland
DK	Denmark	**PT**	Portugal
DE	Germany	**RO**	Romania
EE	Estonia	**SI**	Slovenia
IE	Ireland	**SK**	Slovakia
EL	Greece	**FI**	Finland
ES	Spain	**SE**	Sweden
FR	France	**UK**	United Kingdom
IT	Italy	**HR**	Croatia
CY	Cyprus	**IS**	Iceland
LV	Latvia	**IL**	Israel
LT	Lithuania	**NO**	Norway
LU	Luxembourg	**CH**	Switzerland
HU	Hungary	**TR**	Turkey
MT	Malta	**US**	United States

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Reviewing current research literature and presenting new empirical findings, the contributions in this book reflect the ways in which retirement and an ageing workforce are at the intersection of key social changes over recent decades. It addresses the question of what factors enable, or hamper, people to continue working at advanced age; it aims to provide sound and accessible evidence and suggest innovative ways of thinking to support active ageing policies. The book is divided into four parts. By examining emerging career development concepts and learning frameworks for ageing workers, the first part gives a broad view of the subject matter. The second part provides perspectives from comparative cross-national research on ageing, learning and working in Europe. The third part identifies ways of breaking traditional patterns to extend working lives and to assist working beyond retirement age. In the final part, active ageing is approached by considering the role of guidance and employer-supported initiatives. This publication conveys two crucial messages. First, successful active ageing requires commitment and involvement from ageing workers themselves and employers, in a context that supports learning and recognises the specific needs of ageing workers. Second, sustainable labour-market participation at advanced age cannot be achieved without sound understanding of ageing, working and learning and the interconnections between these processes.

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