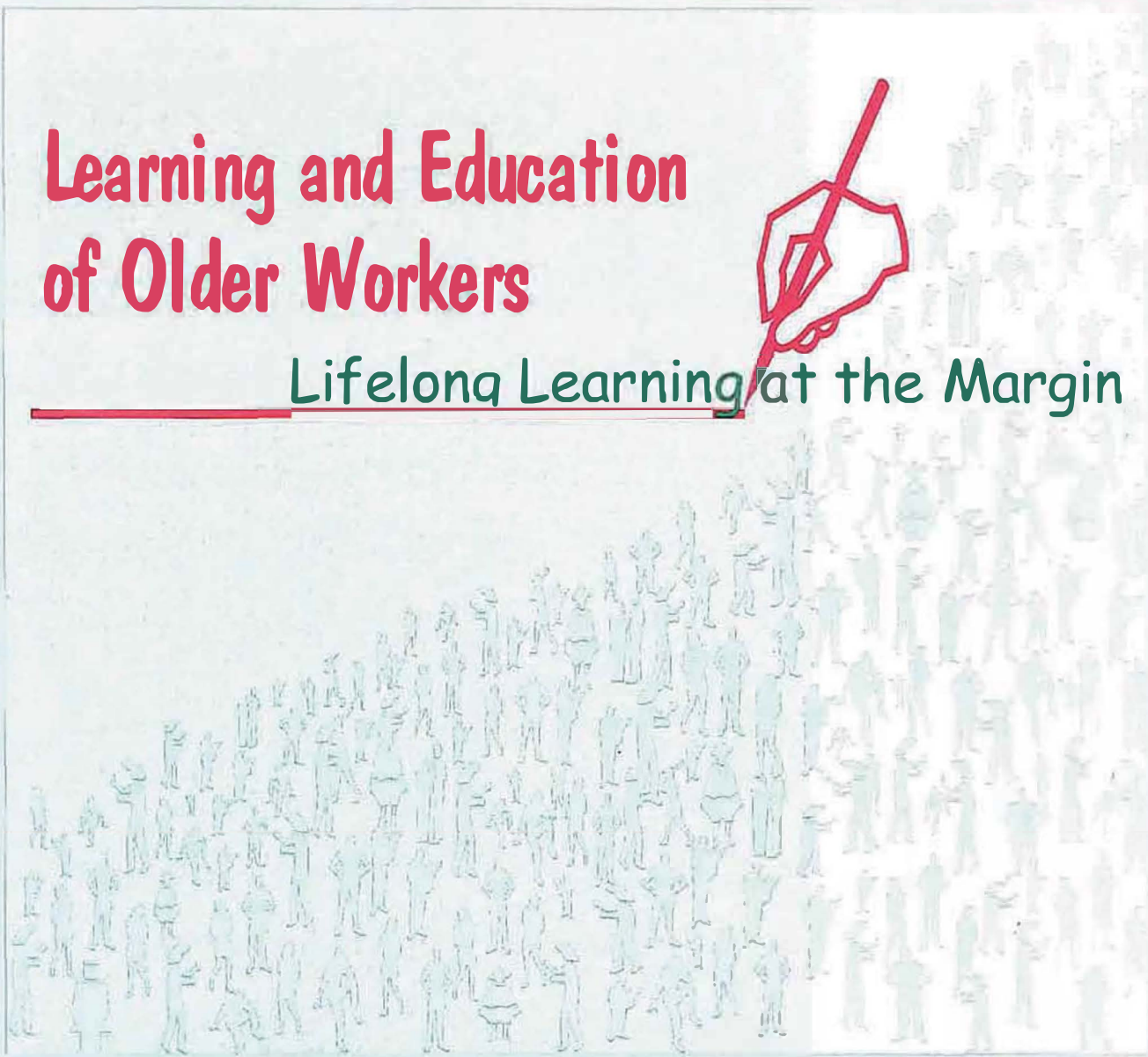
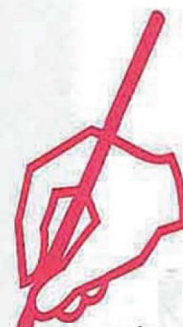


Learning and Education of Older Workers

Lifelong Learning at the Margin



Tarja Tikkanen

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of Older Workers

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Esitetään Jyväskylän yliopiston kasvatustieteiden tiedekunnan suostumuksella
julkisesti tarkastettavaksi yliopiston Villa Ranan Blomstedt-salissa
toukokuun 9. päivänä 1998 kello 12.

Academic dissertation to be publicly discussed, by permission of
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in the Building Villa Rana, Blomstedt Hall, on May 9, 1998 at 12 o'clock noon.

UNIVERSITY OF JYVÄSKYLÄ

JYVÄSKYLÄ 1998

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To my Princess

*May learning lend
you lifelong wings.*

ABSTRACT

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Finnish summary

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The study examined the challenge that learning and education among older workers poses to the development of the existing system of job-related adult education and training, to job organizations and to individuals. Lifelong learning and education, which has been characterized by the absence of older workers until recently, formed the wider context for the study. The report is based on four articles, two of which were empirical studies and two conceptual reviews. The main findings were: 1) By employing advanced statistics, the commonly suggested linear relationship between age and decreasing participation appeared more complex; education and gender became more important than age, and the match between the theoretical underpinnings and research methods was improved. 2) Although job organizations are one of the main contexts for lifelong learning, it was suggested that, historically, the value of older workers has varied in accordance with the value assigned to experiential, practical knowledge gained in the context of working life. 3) The low value accorded the experience-based competence of older workers in practice was shown to be in contradiction with an emerging knowledge paradigm and current theorizing in adult education, both assigning high value to practical, local and tacit knowledge and experiential learning. 4) Professional competence is increasingly viewed as change-oriented and as highly a matter of definition; however, the tools for valid analysis are lacking. Thus, in comparison with younger workers, claims by employers about the lower competence of older workers, still largely draw upon stereotypical attitudes rather than factual knowledge. The attitudes of employers and management towards older workers and their learning are crucial in fully realizing the idea of lifelong learning. 5) The crucial importance attributed to competence and learning as key factors in advancing developing working life does not necessarily show in the practice of human resource management, particular in the case of older workers.

Key words: older workers, lifelong learning and education, experiential learning, knowledge and skills, professional competence, statistical methods

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Very recently I was asked how long it took to finish this project. All I could answer on the spot was: a long time. There are many points of view as to how long that actually is. Here I should like to extend these acknowledgements to cover the whole course of my studies towards the doctoral degree, not only the specific period required to prepare this report.

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For almost ten years now the Department of Education has been generous in providing me with the conditions and facilities needed for working. I wish to acknowledge my obligation to you for not losing your faith in me. My thanks also to all my colleagues, some of whom have already left the Department, for their support.

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*What we call the beginning is often the end
And to make an end is to make a beginning.
The end is where we start from.*

- T. S. Eliot: Four Quartets -

Jyväskylä, April 18, 1998.



Tarja Tikkanen

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LIST OF ORIGINAL PUBLICATIONS

The thesis is based on the following articles, which are referred to in the text by their Roman numerals. References to the tables and figures of the original articles are made by indicating their number and the number of the page referred to.

- I Tikkanen, T. (In press). *The age-participation relationship revised. Focus on older workers*. *Adult Education Quarterly*.
- II Tikkanen, T., Valkeavaara, T. & Lund, Å. 1996. *Ageing work force and life-long learning: an organizational perspective*. *Education and Ageing* 11(2), 100-114.
- III Tikkanen, T., Paloniemi, S. & Penttinen, A. (Forthcoming) *Interest and participation in adult education among ageing workers*. In K. Percy (Ed.) *Researching Older Learners: Issues, Experiences and possibilities*. Lancaster University, Lancaster, U.K.
- IV Tikkanen, T. (Forthcoming). *Perspectives on the professional competence of older workers*. In K. Percy (Ed.) *Positive ageing. Essays in educational and social gerontology*. Aldershot: Ashgate.

Copies of the articles are included in the report as attachments.

1 INTRODUCTION

This work focuses on a recent challenge posed by an emerging group of learners, older workers¹, who represent a new target for education and training. The core of the challenge has been the paradox that at the same time that the value of experiential knowledge and learning has been recognised in theorizing on adult education and in Human Resource Development (HRD) and Management (HRM), the value accorded to the most experienced workers has decreased in working life.

Although I explore the case of older workers across a broad spectrum, the emphasis is on the attitudinal factors that have contributed to the emergence of this paradoxical situation. Recently, the call for learning and education for older workers has increased (e.g. Aronsson & Kilbom, 1996; Boogerd-Quaak, 1996; Nygård & Kilbom, 1996; Solem & Myckletun, 1996), which, in addition to many other changes in working life, can also be interpreted to reflect changes in attitudes toward older workers. However, since there are various players in the labour market relevant to the issue at hand, we need to be attentive to various points of view on these attitudes - employees, employers, policy makers and adult educators most importantly, but also researchers. Regardless of the signs of changes in these attitudes, they still are predominantly paternalistic, reflecting the paternalizing attitudes common in working life (Wray, 1996) - and as such echoing the more general "gardening" (Bauman, 1997) attitudes in society. It has not been the older workers themselves who have started to request more education and training, but other voices in society on behalf of and for them. Therefore, it can be argued that the signs of changes in these attitudes, dressed up as requests for more learning and education, in fact, have thus far only succeeded in underlining the marginal position of older workers in working life. Taking this view as a point of departure, this study can be viewed as an exploration into the context in and the conditions under which the voices of older workers, particularly as potential lifelong learners, have remained unheard.

¹ Throughout this report "workers" refer to work force in general

1.1 New concept of the old idea of lifelong learning and education

Regardless of the focus on older workers, as an adult educationist my starting point, and the broader framework for reflecting the major questions and challenges throughout this study, has been lifelong learning and education. Thus, the study has sought to clarify the phenomena of learning and education among older workers within the more general discourse of lifelong learning and education. Having selected such an emphasis, what a remarkable boost it was to find out, at some point during the year 1995, that the following year, 1996, was to be celebrated as the European Year of Lifelong Learning. Although the idea of lifelong learning is not at all new, during the last a couple of decades it has been put into the forefront of ideas about education in Europe and throughout the Western world.

Rather than signifying a return to the ancient roots and concept of lifelong learning (McClintock, 1982), the idea has become embodied in two overlapping developments. One has been "adultification" (Abrahamsson, 1996), according to which concern for lifelong education and training extended to cover adulthood after finishing youth education and training. "Adulthood", however, turned out to cover only the post-youth adult lifespan up to a certain point, until about, say, the age of 40 years or so. The other parallel, powerful development has been "vocationalism" (Harrison, 1996), according to which the concern in lifelong learning and education is above all for the needs of working life. As a result of these developments, the term lifelong learning has become almost a substitute for the concept of job-related adult education. The conclusion to be drawn is that the implementation of the idea of lifelong learning and education has thus far succeeded neither in being "lifelong" nor "lifewide".

On the one hand then, it is not surprising that until very recently older workers have been invisible in this discourse about lifelong learning and education. On the other hand, their marginal position regarding lifelong learning, together with their marginal position in contemporary working life reflects another interesting paradox. In practice, as mentioned above, work-related learning and education represents the lion's share of adult learning and education (Henry & Basile, 1994; Simpanen & Blomqvist, 1995; Uden, 1996) whereas that of older adults represents only a small part of it, regardless of the fact that older workers represent an increasing majority of the total work force in most European countries. That is, in practice most adult learning and education takes place in work-settings, but in the discourse of lifelong learning and education older workers are largely absent, regardless of their increasing proportion in the work force. The conclusion is that although in terms of numbers of potential participants in learning and education activities in the working life context older workers represent a large and still growing group, in terms of public recognition, policy and practice, they have remained marginal. While in Finland in particular they have only very recently started to gain acknowledgement and recognition - become more visible, that is - in the United States this discussion was already a heated one ten years ago.

At the end of the 1980s when I started dealing with learning and education

among older adults the major question for me to open with was: provided that lifelong learning was increasingly called for, why were the more mature learners so invisible in the formulations of Finnish educational policy and in everyday educational practice as well as in the contemporary theorizing in adult education? As it turned out, there was no obvious and straightforward answer to that question. The relevant policy documents did not outrightly state that the choice to exclude older adults had been a deliberate and an intentional one. If the committees and working groups in Finland in the 1970s and 1980s, such as the Committee on Adult Education I (1971) and II (1975), the Committee on Continuing Education 1983, and the Steering Committee on Adult Education 1985², which were the most important ones, did set some limitations to the scope of their work, the line was usually drawn between vocational and non-vocational education. Also, if the needs for learning and education among older people were referred to, it was typically done with regard to non-vocational education. Therefore, excluding older adults did not seem to be a choice at all, in the literal sense of the term. Older people simply were not an issue at that time.

Yet, there was a certain preconception about the value and importance of adopting the principle of learning and education as *lifelong*, instead of adhering to adult education. The argumentation and further conceptualization which would have integrated it into the existing educational and broader socio-political context of that time, however, was vague, if not totally lacking. What then was this preconception based on? It could have been the case that there was a certain lag, as there always is, from the initial idea to its realization in practice. Yet the existing documents and policy formulations concerning lifelong learning included no statements about how to enhance the learning and education of older adults or about visions in this area. One reason for the situation becomes obvious when looking at who were the advocates. Different voices predominantly came from different speakers. It was mainly researchers and some progressive (or historically minded) adult educators, who spoke on behalf of lifelong learning and education. Policy makers in education, however, merely adopted the term, and used their freedom to define its contents and structure according to their understanding of the needs for developing education. It was for the latter that older people were not an issue at the time. In spite of regarding the participation of older adults as positive, their basic attitude towards learning and education at older ages was characterizable as "entertainment" or "keeping them busy". According to Moody (1976) this line of thinking represents the Social Services model in the education of older adults: participation in education among the more mature learners is not viewed as a serious and purposive undertaking as among younger people.

From the point of view of policy making a crucial issue, of course, was the line of thinking adopted with regard to older workers. As well as standing as the decade of an explosive increase in adult education, the 1980s were the decade of the adoption of the early retirement schemes. The latter was true throughout the Western industrialized societies (Sheppard, 1990). Therefore, parallel with the

2

Aikuskoulutuskomitean mietintö I (1971) ja II (1975), Jatkuvan koulutuksen toimikunnan mietintö (1983), Aikuskoulutuksen johtoryhmän mietintö (1985)

development of the early retirement schemes (adopted in 1986 in private and 1989 in public sector in Finland), the system of lifelong learning was being developed. While it would have been possible to develop the system of lifelong learning - which, as stated above, was increasingly focused on working life - to include all age groups equally, to avoid internal inconsistency between the two developments and between the two sectors of policy making, it was wise to say as little as possible about the enhancement of learning and education of older workers. The economic situation of the time, too, supported this line of thinking in labour force policy.

1.2 Trends contributing to the call for expanding learning among older workers

Recently the demand for involving older workers, too, in lifelong learning has become stronger. This demand has come from researchers and, to a degree, from policy makers, as well, but less from employers, and from older workers themselves. Adult education practitioners seem to be somewhat confused by this new situation. For them the situation represents a challenge, which they have not seriously needed as yet to face. This is because in practice the participation of older workers in education and training has been rather modest. But what is the background to these requests? What changes have taken place that have led to what seems to be an extension of the coverage of lifelong learning in practice and policy making, following more the line of theorizing by researchers? Besides, and together with, the influence of the demographic shift towards an ageing society (e.g. Jouvenel, 1989; Demographic situation ..., 1996), there are several, partially interconnected developments in adult education, working life and research on ageing behind the plethora of requests for more learning and education for older workers in Europe.

Firstly, while in the 1980s labour force policy was characterized by showing the older workers a door leading out of working life, in the 1990s this has turned upside down: now ways are sought to keep them in. With regard to the latter, increasing education and training is regarded as one of the most important means (Anderson, 1996). Again the economic situation underlies this line of thinking³. When it comes to older workers the labour force policy of the 1990s seeks to remedy the negative consequences of the early exit policies of the 1980s. The latter obviously were poorly foreseen - regardless of the vast inputs in the development of measures in various disciplines (economics, social sciences, etc.) to control the development in and of society by prediction. In fact, in the 1980s social economists

3

When describing the development of pension systems in Britain, Parker (1987) concludes that older workers, at least as far as the working class is considered, have been regarded and used as a labour reserve. Following the economic situation in society they have been defined on a continuum from a "resource" to a "problem", and treated accordingly.

(e.g. Mirkin, 1987) were warning that from the point of view of macro economics the development of early exit policies would be short-sighted.

Secondly, the 1990s has also been a decade of increasing and increasingly visible age-discrimination in working life. Besides the high unemployment rate among younger workers in Finland, the result has been continuously increasing unemployment rates among older workers (Labour Force Statistics 1995, 1996). As an outcome concerning working life these developments, no doubt, have made older workers and their situation more visible, but the vision thus far has not been an encouraging one. Given that from the point of view of the older worker these developments have predominantly been devastating, the call for more training and education for them stands primarily as a remedy. As such, this remedy is not driven by the requests of older workers themselves, but rather been "imposed" on them by society - the policy makers and researchers in the frontline. Although there is no empirical evidence of this, it seems that older workers themselves have less faith in their abilities and skills and less self-confidence to participate more in education and training. High unemployment among younger and higher educated people as well may also have undermined the faith among older workers in the positive outcomes of fresh training and education. Finally, the idea of a remedy is clearly far from the overall goal of "joy of learning" within the discourse of lifelong learning, outlined, for example, in Finland in the recent work by the Committee on Lifelong Learning (1997).

Thirdly, the visibility of the older worker is increasing due to the emergence of the "new paradigm" (e.g. Elder, 1994) of the life-course or life-span perspective in social sciences in general and in gerontology in particular. The influence of this new paradigm has turned out to be positive and promising for learning and education to take place at older ages, too. In a psychological and socio-psychological sense the idea of lifelong learning is well supported, accepted and realized world-wide all the time. During the 1980s and 1990s there has been a slow but steady increase in the participation of older adults in adult education in Finland (e.g. Simpanen & Blomqvist, 1995; Tuckett & Sargant, 1996)⁴, although mainly within liberal adult education. However, realizing the vision of education, the "institutionalised process of learning" (Jarvis, 1993, 2), as lifelong, is much less straightforward and there are diffuse views concerning it.

Finally, the increase in volume of participation in adult education, together with the rapidly increased call for continuous learning in working life, have contributed to changes in adult educational and learning culture, and consequently in ways of living. Currently a distinction in the status of an employee among staff and in the eyes of co-workers is often made between the active, often younger, employees, who have the energy to study after working hours, and the less active, non-studying, often older ones. Thus, participation in learning activities and continuous self-development is becoming a norm for the successful employee. As a norm, there is really no choice left to a worker whether to adopt

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Some caution, however, is required when generalizing these statistics. Notable cross-national differences exist in collecting the statistical data (e.g. in whether collected from people or institutions), but also in definitions of participation on the one hand and of adult education on the other.

this way of life or not. Whether privately undertaken or employer-initiated and provided, recurrent training is increasingly becoming an essential element in employment. From this point of view there is a sharp contrast between older and younger workers. It has not only to do with willingness and the pace of adoption of this line of thinking, but also with the fact that the "oldest" older workers in fact have the option of resisting this change and "giving up" through retirement. As the learning-oriented way of life has become increasingly common during retirement or the third age, older workers, in fact, are the last group to be included in the world of lifelong learning. What makes the situation complicated, however, is that what again seems to be left for older workers themselves is simply the demand to adjust to new circumstances and the consequent need for learning, and reconcile themselves to a new cultural situation defined by others, typically younger people.

1.3 Older workers - the underdogs

It needs to be remembered that the rather gloomy view about the older worker's position within the discourse of lifelong learning presented above, and reflected to a degree in the four articles that form the basis of this report, does not necessarily reflect the view and experiences of the older workers themselves: at no point, during the discussion about lifelong learning, have they themselves made any significant effort to make their case for more options for learning and participation in education and training. Given that patronizing - be it how ever "sophisticated" - mode of management continues to prevail in companies (Wray, 1996), resembling our patronizing attitudes toward older people in general, the claim about their needs for learning, education and training, and the definitions of such needs as well as "pushing" them into that direction, have by and large been made by "others". The voice has been given less to older workers themselves, as with other marginalised or de-privileged groups (Gergen & Thatcher, 1996) in society.

However, rather than say that older workers would not agree with the conclusions of us others, we should remind ourselves of three things. First, instead of viewing more learning, education and training as self-evidently good and necessary for older workers and/or assuming that they are self-evidently willing to continue longer in working life (as they were regarded to be willing to leave it in the 1980s), their views and experience may be different. In fact, at the current point of research in the field we do not know much about their views. There are some signs suggesting that such differences do, in fact, exist. For example, in Finland the willingness of older workers to exit the labour market by retirement and totally relinquish paid work has been found to be very high (Gould, Takala & Lundqvist, 1991; 1992; Kinnunen, Parkatti & Rasku, 1993; Lilja, 1990; Nygård, Piispa & Ilmarinen, 1992), and as early as at the age of 40 years workers are reported to think a lot about their future retirement (Matikainen, Malmivaara, Müller et al., 1993). This may imply that learning, education and training and continuing working life may not be the most favoured and desirable option

among older workers, at least among all of them. Thus, these assumptions are also often based on homogenizing views about older workers.

Second, without hearing the target group itself we run the risk of taking a superior “know-it-all” position over their needs. This cultural insensitivity neglects the possibility that the world of learning, education and training can be a distant and an alien, even a frightening one for the members of the older generations. When looking at practices in but also the research on adult education, at least in Finland, the obvious conclusion is that cultural insensitivity is, unfortunately, all too common among adult educators and in adult education in general. Finally, excluding older workers from this discourse reflects an attitude which does not recognize, acknowledge or show interest in the value of the knowledge, skills and attitudes which older workers already possess. Such an attitude has its roots in the traditional medical approach to ageing (Willis, 1991), focusing on disease, disability and irreversible decline with increasing age. Awareness of negative attitudes may be threatening to beliefs about their self-worth and self-efficacy among older workers. When older workers think about their needs for more training as against the value of the experience from and knowledge gained in working life that they already have, they may end up with the negative assessment that their existing knowledge and skills have no value. Often, however, it is also the case that older workers themselves hold these attitudes towards their knowledge and skills - through the process of self-fulfilling prophesy (Walker, 1996).

1.4 Purpose of the study and structure of the report

The learning and education of older workers are complex issues. Part of this complexity is due to novelty. For this study, there were scraps of information here and there to begin with, but as an integrated whole the overall dimensions remained to be explored. In other words, if the learning and education of older workers represented an issue, the issue had first to be formulated by this exploration. Here the exploration was directed to three broad domains: ageing, education and working life. Regardless of the considerable overlap of these domains in practice, the existing literature has predominantly treated them separately. Therefore, a more coherent framework has been adopted in this work, allowing all the three domains to interact.

The basis of this report is the four articles that I have previously written or co-authored with my colleagues⁵ in this area. While each of these articles addressed their own particular questions and answers, the main task for this

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The initiative for writing and the main responsibility for the study and outcomes are all mine. In the second (II) article, Valkeavaara's contribution was in providing general views on HRM and HRD as described in the first part of the article and Lunde was providing the example of practice from Norway. In the third (III) article research assistant Paloniemi helped in reviewing the literature and Professor Penttinen in running and interpreting the loglinear models.

concluding commentary is to constitute the issue of the learning and education of older workers at a more general level. Given that we have a well established system of general, vocationally oriented adult learning and education, what is the challenge represented by the older worker and why should it be specifically focused on? That is, what are the particular characteristics at stake, when considering the learning and education of the older worker, the characteristics that make it an issue as such?

On a technical or structural level the role of this concluding commentary is two-fold. Firstly, it briefly summarizes and presents an inventory of the contents of the articles written. Secondly, the report aims to provide a common framework for the issues covered in the articles, in order to link them together, as representing the larger phenomenon arising out of the topics of these articles. Also, this general framework, as such, stands for a bridge linking the separate issues covered in the articles to their broader context.

The geographical-cultural context for the work is mainly the Finnish society, although I have also frequently referred to the European Community, and occasionally to the Western world in general. Thus, unless otherwise stated, all statements first and foremost refer to Finland, although they may have more general relevance, too.

In a sense this concluding commentary is to be considered as a general discussion. Chapter two describes the scope and context of the issue of learning and education among older workers. In addition to describing the main concepts, the chapter reviews relevant research in the three domains mentioned: ageing, education and working life. Given that empirical studies on learning and education of older workers hardly exist, the reviews deals with the relevant literature more broadly. Chapter three offers a brief summary of the purpose, main arguments, findings and conclusions of the four articles. The general discussion section is divided into two chapters. Chapter four considers practice and policy. Central contemporary issues and future challenges regarding the participation of older workers in learning-related activities are discussed. Finally, chapter five provides general conclusions and implications for research into learning and education among older workers.

2 AGEING, EDUCATION AND WORKING LIFE

2.1 Multidimensional context of the analysis

The complexity of the issue of learning and education of older workers draws on a wide and multidimensional context. The common denominator for the four articles is learning and education among older adults. Further, all of the articles either deal solely with job-related learning and education (II, IV) or involve this domain in a broader consideration of learning and education among older adults (I, III). In conclusion then, at least three main perspectives were felt necessary here: adult education, ageing and working life. The scope of the articles at the intersection of these three domains is outlined in Figure 1.

The proportion of the overlap of the squares describing adult learning and education, older adults and working life shown in Figure 1 does not necessarily

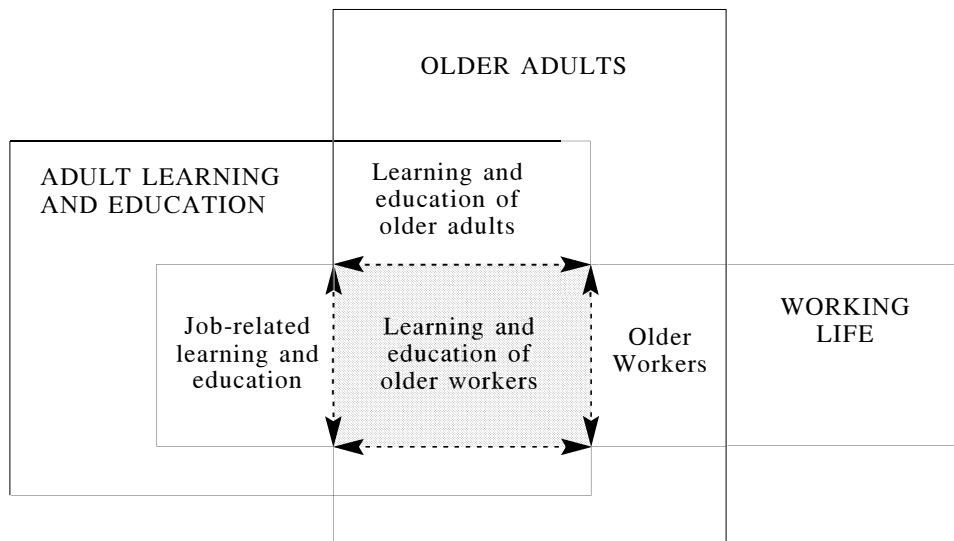


FIGURE 1. The context of learning and education of older workers

indicate the factual situation, but underlines the two central issues brought up in the introduction. Firstly, most contemporary adult learning and education is work-related, and secondly, older workers account for only a very small proportion of this. The arrows describing the proportion of older workers in education signify that their proportions of both adult learners and of workers is continuously factually and relatively in flux. Changes in former can be due, for example, to demographic changes or to changes in educational policies and practices, which make learning and education more appealing and easier to access of older adults. The factual changes refer to the fact that learning and education, to a degree, (Brezinka, 1992; Jarvis, 1993) as well as “job-related” and “older” are a matter of definition. Definitions vary depending on the point of view adopted or on the particular cultural or historical context in question.

In addition to the wide range of the study in terms of substance, the discussion is conducted at three levels: research, practice and policy, the last, however, to a lesser degree. Given that in the social sciences it is also common to view and treat these three sections as separate from each other, a more integrative approach has been adopted during the course of this work. The relationship between the three levels is seen necessarily to be one of interdependence. That is, each of the domains or levels are involved in discussion about learning and education among older workers. It needs to be pointed out, however, that policy is to be viewed as a central means of influence on practice - as well as on research - rather than as a particular political context in which the issues at hand have been considered or reflected upon.

Combining these three points of view of with the three perspectives of substance mentioned earlier, results in an overall scope or framework in the form of a 3x3 cross-tabulation. The resulting nine dimensions are shown in Table 1. These nine dimensions form the landscape for the work undertaken in the four articles and in this concluding commentary. I prefer to call it a landscape, since each of the issues brought up in Table 1 are not given equal weight. Some are discussed more thoroughly while some have only briefly been touched upon. The selection of the particular issues covered in the four articles has not been based on a systematic, pre-planned compilation of issues that would together have formed an extensive whole. Rather, the work has progressed in a counterwise direction. The articles were written first, the selection of their topics being guided according to my interests within the broader issue of the learning and education of older workers.

The rest of this chapter will first provide definitions of the central, although continuously confusing, concept of an “older worker”, and that of “job-related education” as they are used here. Next, the learning and education of older workers will be considered from the point of view of research. Issues relating to policy and practice have been touched upon in the articles, and will be further discussed in chapter four.

TABLE 1 The main dimensions on studying the learning and education of older workers

Perspectives	Research/Theory	Policy	Practice
Ageing	Gerontology - educational gerontology - industrial gerontology	Social policy Pension policy	Physical, mental, social and cultural consequences of ageing Definitions of age Maturity and needs and goals for knowledge, learning and understanding
Education	Adult education Formal vocational education "Shadow educational system" Older adults as targets of education Older adults as learners	National educational policy Policies in educational institutions Organizational HR training and development policies	Provision of education/options for learning of older adults Educational culture and meaning of education for older adults Participation/ non-participation of older learners Competence of adult educators to understand and enhance the learning of older workers Learning skills and "trainability" of older workers Learning, competence and education in terms of knowledge and skills to be achieved
Working life	Work - and leisure Human resource management - management of an ageing work force	Labour market policy Labour force policy Trade union policies Organizational personnel policies	Position of older workers in the labour market, age-discrimination, marginality Definitions of professional competence Competence and qualifications of older workers Principles and practice of human resource management (HRM) and development (HRD) in job-organizations Everyday working practices of older workers in job-organizations Work organizations as knowledge users and (re)producers

2.2 Ambiguous concepts

2.2.1 An "older" worker

The term "older" used in this work has been defined loosely. The age of 40 years has been adopted as a starting point when referring to the older worker as defined by chronological age. As pointed out in the articles (for example in I and IV), this choice derives from the issue of age-discrimination in the labour market. Given that age-discrimination has many faces (e.g. job-recruitment, promotions, labour exit) and consequently the particular age discriminated against varies, the youngest targets are to be found in the domain of job-recruitment. Job vacancies advertised in the Finnish press currently typically call for employees aged between 25 and 35 years of age, and very occasionally an age limit of 40 years is specified. Therefore, the choice of 40 years of age as a limit could be viewed as pragmatic (Straka, 1990b) or functional (Root & Zarrugh, 1987) definition.

Older workers are generally referred to workers in their forties. Regardless of the relativity of the concept "older" there have been efforts to create official (standard) definitions for "older workers". For example, the committee of Ageing People in Working Life (1996) by the Ministry of Labour in Finland defined those aged 45 years and older as "ageing" workers and those aged 55 years and older as "aged" workers. The age of 45 years or older is also used, for example, in definitions of older workers by the Canadian government, whereas in the USA the age of 40 years signifies the beginning of protection by federal legislation against age discrimination (Marshall, 1995). In Germany, Straka (1990b) based his "pragmatic" definition on the actual situation of the older worker in the labour market and chose an age limit of 40 years, regardless of the existing higher official definitions. The conclusion to be drawn from these definitions is that the term "older" seems to have overtaken what used to be defined as "middle-age".

It needs to be taken into account, however, that chronology is only one, if most typically used, approach to defining age. In particular social gerontologists (e.g. Marin, 1996) have pointed out that age is a multidimensional and a multilayered concept, by and large a social construction (Featherstone & Hepworth, 1990), and as such highly a matter of definition. Thus, we simultaneously live many "ages" which are not necessarily synchronized. Even with regard to chronological age the limits are flexible and changing, as was evidenced during the course of this study too: as the study became "older" the definition of an older worker generally became "younger". Other approaches to ageing used are legal, functional, socio-psychological and life-span (Sterns, 1990). The existence of these various approaches underlines the dependency of the definitions on the context of application. The particular contexts are, for example, phase of career (e.g. entrance to or exit from the labour market), employee status and the vocational branch in question. For example, as suggested earlier in job recruitment, a person may be considered too old at the chronological age of 35 years, whereas for top-management positions, with high responsibility and the requirements of wide-range experience for decision-making, a person at the same age may be considered too young or as only coming of age. A student recently told me, how her

husband, aged 32 years, got a job in the Finnish high-tech company Nokia and at the same time it was pointed out that he was now one of the oldest workers in the team!

To conclude, definitions of older workers mainly derive from a social and/or functional basis (though here less in a physiological sense). In other words, they derive from various practices and related policies, but also from attitudes in working life and in society more generally. As a result, while it is chronological age that in any case is used to mark this category of the population, the actual age in question can vary significantly. Consequently, labels in the form of chronological years on the one hand effectively hide the more substantial issues behind the use of these age-limits and on the other guide our perceptions of who is old. One of the reasons for not having dispensed with these in fact very vague and imprecise chronological definitions could be that, by and large, our perceptions of age and the human life-span are still tuned by the tripartition of the modern life-span. According to the latter the start of old age (see Parker, 1980) is signified by the statutory retirement age (Walker, 1990)⁶ the adoption of which defined old age as a separate phase in the human life-span. Similarly the lowering of the age of exit in the early pensions legislation has had effects on our views of the older worker:

“As age thresholds have been lowered to provide exit routes out of the labour market this has had significant consequences for those ageing workers left in the labour market because it is likely to have affected employers’ perceptions of the age at which workers may be considered to be ‘too old’.” (Walker, 1996, 5)

2.2.2 “Job-related learning and education”

The title of this section begs two questions: What is learning and knowing? What is education? and What is job-related? - all equally intricate concepts. The view on learning adopted here is very broad, allowing learning to take place in any form (not only in institutionally or individually organized forms, but also incidental learning) and in any context (formal, informal, non-formal). In fact, the concept of learning adopted here comes close to the concept of adult development. This view is in line with the approach of Tennant and Pogson (1995), suggesting that learning (through education, in its broadest sense) is a crucial marker in adult social and intellectual development, and thus these two issues are inextricably bound up with each other. Consequently, “knowing” through learning is never enough, but is rather to be viewed as an ongoing process throughout one’s life. Thus, continuing learning is not only a matter of knowing more (content), but, and often more importantly, changes in knowing in terms of quality and intensity throughout one’s life.

Education, more than learning, is a controversial concept (e.g. Adler, 1982;

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However, as Walker (1996) points out, that process of social construction was not only a result of national governments using their powers, but the individual workers and their trades unions were also actively involved in it.

Brezinka, 1992; Jarvis, 1993). In general two main lines of conceptualization can be found in the literature. According to the more narrow definition, education is less than learning, since it refers to institutional and/or formal forms and contexts of learning, such as training and teaching. For example, Jarvis (1993) defines education as "the institutionalized process of learning" (p. 2), although he acknowledges that aside from an institution education is also a process. According to the broader definition, education is more than formal and institutional organized learning. Adler (1982), for example, argued that we should not use the term education when referring to a system based on "paternal pedagogy", since education "in its essence is the cultivation of the human mind. Education consists of the growth of understanding, insight, and ultimately some wisdom." (p. 92). In line with this view, the more radical critics oppose to the rationale of education as interventions holding that, in the broad sense of the term, education as expanding one's understanding of the world runs contrary to the idea of intervention (Carmen, 1996). Further, Adler (1982) argues that since experience and its reflection is essential in education, it requires maturity to truly take place. Thus, the broader view gives more credit to the "educative" function of everyday experience and self-education than the narrow view, which has been dominated by a more abstract content imparted by various authorities.

In this work I have adopted a view which lies somewhere between these two, although closer to the broad definition. According to this view, education includes individually and institutionally organized learning, such as training, and is therefore less than learning (which may also be incidental), but more than simply institutionalized, formal adult education. Therefore, in neither the articles nor this concluding report is the learning and education of older workers viewed only within a formal vocationally-oriented adult education system, but, and more importantly, it is seen as existing within the "shadow educational system" as defined by Nordhaug (1991). I have adopted the concept "shadow educational system" because it is an effort to grasp the very fragmented and heterogeneous field of job-related education outside the formal system currently existing. It covers

"all types of organized [by the individual or by supra-individual entities] learning for adults that occur outside the regular educational system, i.e. all formalized adult resource development. Consequently it is very comprehensive and heterogeneous - hence making it very intricate and cumbersome to map, describe, and analyse." (Nordhaug, 1991, 17).

As Nordhaug (1991) points out, the shadow educational system is not a unified system of integrated elements definable in institutional terms, but relates more to such concepts as the "hidden curriculum" or "hidden university", and as such is less visible than the formal system of education. Through informal learning shadow education also has a central role to play in the development of hidden (Bereiter & Scardamalia, 1993) or tacit knowledge (Gibbons et al., 1994) and skills and knowledge representing metacompetence (Nordhaug, 1991 - Article IV). Nevertheless, the broader view of the system of job-related education has developed, but also become more visible in many countries, as a part of developing the

system of lifelong learning and education. The latter has been interpreted as an indication of the increasing institutionalization with time of the shadow educational system as well (Nordhaug, 1991).

Another reason for using this conceptualization here is that it aims to bridge the gap between the formal traditional system and the more recently developed and developing forms of learning and education in working life. Human resource development in working life and personnel training are regarded as central parts in the shadow system of learning and education. Following Adler's (1982) definition of education presented above, the widening conceptualization of education, which has been taking place more generally in adult education, might be a sign of a extending a purely paternal pedagogy in the direction of "real" education, including essentially self-directed education. However, whether we are witnessing here only a temporary extension to or a real departure from the mainstream educational thinking remains to be seen. Here suffices it to note that, in fact, the broader definition of education provides better grounds for the consideration of learning and education in the case of older workers, because the levels of their formal education are typically low. Most of what they have learned from work, they have learned in practice and through their experience. For many of them that is the best and the only concept of learning and education. The formal system of education is not part of their "life-worlds" (Habermas, 1984) or their "personal cultures" (Valsiner & Lawrence, 1996). Therefore, from a personal point of view, it is typically a distant and strange element for them. What it is important to notice here, however, is that the argument is stated only with regard to work. Older workers in jobs with limited options for learning may have learned to be helpless, that is, to be content with routine and to avoid the challenges that are offered as training or education in the workplace. Yet they may be active in learning in other domains in their lives, such as, for example, in leisure activities, hobbies, as members of various associations or in caring work within the family. Further, regardless of their distant relationship to the formal vocational educational system, during their long work careers older workers have acquired enormous amounts of knowledge and skill through their jobs. Provided that specific basic skills (technical, language, etc.) among older workers too need to be continuously updated, we might conclude that compared to their younger counterparts, more used to formal training, older workers can both make a better contribution to and take better advantage of efforts to develop job-related learning and education in the context of their work. That is, within the shadow educational system rather than within the formal system.

Finally, the criteria used here for defining whether learning and education is eventually job-related or not, has not been its source, but its use by and contribution to the worker's skills and knowledge and his or her job performance. Also, following from taking the shadow educational system as a point of departure, I have not drawn a clear line between vocational and liberal education. In current educational practice, this separation is becoming increasingly hard to make. It has been argued that the "old war between 'liberal' and 'job-related' [education] has been both unnecessary and destructive, a mere clash of false images" (Bell, 1996, p. 167). This view is partly related to a more general development, according to which the line between work and non-work activities is becoming increasingly

blurred (Chaney, 1996), as, for example, new technologies allow for new forms of working to develop (e.g. distance work) and as lifestyles are changing (e.g. YUPs, singles). This line of thinking has also been adopted here: no more than work and education can be regarded as separate domains in human life can work be considered outside of a broader context of non-work domains in human life. Nevertheless, the examination of work and education with regard to the other domains in life, such as leisure and family, though highly interesting, have for practical reasons been excluded here.

2.3 Fragmented state of research

Research focusing on issues of learning and education among older workers hardly exists. Nevertheless, most studies on older workers mention the need for attention in this area. Relevant research, however, does exist, but it is fragmented into three domains: research on learning and education, on workers and working life, and on ageing. In the following I shall only briefly review each of these lines of research, since to a degree they have been discussed in the articles, as well.

2.3.1 Older workers, working life and human resources management

The literature on older workers is abundant. In fact, as was referred to in the introduction, the discussion on older workers started to intensify in the 1980s in relation to early exit from the labour market. It has accelerated throughout the 1990s, focusing on the disadvantaged situation of older workers in working life. The goal in research and policy on older workers is generally a shared one: to keep older workers in working life longer than came to be the situation after the adoption of the early exit policies of the 1980s. The programs and policies adopted to achieve this goal fall into two main categories. First there are employment incentives ("carrots"), such as employment, occupational health and training programs, and, second, retirement disincentives ("sticks"), such as the raising of the mandatory retirement age (Crown, 1991). As Crown (1991) has pointed out, retirement disincentives, which encourage the employment of older workers by making retirement less attractive, may have adverse effects on particular sub-groups of the older population (e.g. those with health problems) and further contribute to age-discriminative practices in the labour market. Many studies have focused on examining employment incentives, which are facilitative in nature and do not have discriminatory impacts, for they operate by removing barriers to the employment of older workers (Crow, 1991).

Among the most crucial issues that contribute to the labour market problems of older workers and result in barriers to their continued participation in the labour force, are negative stereotypes that work against older persons, skills obsolescence and lack of new skills, functional disabilities, and limited opportunities for flexible job scheduling ("flexitime"), such as part-time employment (Root

& Zarrugh, 1987). Hence, the existing literature has covered various points of view, such as motivation and commitment on the part of the employees, employers views on older workers (attitudinal factors), ability (almost solely in the health sense, rather than skills and knowledge) and opportunities (structural and economic factors). Regardless of the overall abundance of the existing literature on these issues in general, empirical studies with a particular focus on older workers hardly exist. Further, existing studies have covered the central issues mentioned somewhat unevenly, focusing more on some areas and leaving others (e.g. obsolescence of skills and knowledge) almost untouched. Besides differences in the issues covered, there are national differences in the thematic orientation of studies. The factors contributing to national differences in research orientation are to be found in the differences in the economic and socio-political systems in these countries. For example, the Nordic welfare system has always placed a strong emphasis on issues related to health.

Sociologically and socio-politically oriented studies on older workers have focused on their position in the labour market, covering issues such as early exit and retirement, unemployment, combating ageist practices and policies in working life, and the further marginalization of older workers. In particular in Central Europe (Germany, France and the United Kingdom most importantly) research has shown a strong sociological and socio-political orientation, arguing for equality of options in an unequal situation between younger and older workers in respect of continuing to work (see e.g. Delsen & Reday-Mulvey, 1995; Guillemard, Taylor & Walker, 1996; Kohli, Rein, Guillemard & van Gunsteren, 1991; Reday-Mulvey, 1996; Taylor & Walker, 1994; Walker 1996; Walker & Maltby, 1997). There have been large research projects, such as Age Barriers (Walker, 1996), Four Pillars (The Geneva Papers..., 1996; Reday-Mulvey, 1996), the work carried out in the EU Observatory on Ageing and Older People and one Eurobarometer survey as a part of the preparations for the European Year of Older People and Solidarity between the Generations (see Walker & Maltby, 1997) and the studies conducted in the Eurolink Age and the European Foundation for Improvement of Living and Working Conditions (e.g. Pearson, 1996, see also brief review in McDonald & Potton, 1997).

In addition to employment and the labour market, the agenda for the EU's Observatory on Ageing and Older People, for example, included other issues such as living standards, health care and social integration as research and monitoring activities (Walker & Maltby, 1997). Yet, in particular in the Nordic countries, but to a degree also in the Netherlands, where the concerns of research on older workers has largely been functional abilities (e.g. occupational health and rehabilitation) within health sciences and medicine and, to a lesser extent, psychological responses (e.g. job-stress and exhaustion) within psychology (for a brief review, see Lahn, Tikkanen, Lyng et al., 1997; Tikkanen, forthcoming). Thus, in the Nordic research tradition the focus has been on older workers as individuals and on efforts aimed at keeping them able and motivated to work longer. Examples of large research and intervention projects with such a focus are the REBUS study in Sweden and Finn Age, "Fitness-for-the-work" and Respect for Ageing in Finland (see e.g. Fredriksson et al., 1996; Ilmarinen, 1991, 1993; Kilbom, 1992; Nygård et al., 1992) (for a brief summary of the Finnish projects, see Tikkanen, forthcoming).

One of the reasons behind such a focus in the Nordic countries is that this line of research has been conducted mainly in the national Institutes of Occupational Health, with their strong tradition of intra-Nordic collaboration and cooperation. Currently, however, Nordic researchers are also careful to point out that improvement in occupational health care is not by itself enough, but needs to be complemented by the development of job tasks and working practices, occupational skills and knowledge, and working environments, as well as by changes in labour market and pension policies (Gould, 1996; Aronsson & Kilbom, 1996). That is, experience of the existing interventions and the findings of studies show that ability guarantees neither motivation nor opportunities, but that all of these elements need to be taken into account when aiming to retain older workers in working life longer.

Research on older workers has been at its scarcest on the organizational level. The existing literature concerning workers, employment and job organizations in general is rich. Attention has been paid to various issues, such as the changing forms of work organization, job mobility, learning barriers at work and new management practices and learning opportunities in the work-context. Yet, research into the involvement and participation of older employees in this change, in their opportunities for education and training and on managing an ageing work-force has been almost totally lacking (see Lahn, Tikkanen, Lyng et al., 1997). When attention has been paid to older workers in organizations, it usually has taken place within organizational clearance projects (downsizing), due to a specific interpretation of "flexibility" in the labour market. Early exit from the labour market has become the taken-for-granted view on older workers, most typically among employers but very often also among older employees themselves (Gould, 1995). Thus, on the organizational level the goal is very rarely to keep the older workers employed longer as was the case in the studies mentioned above. Rather, the goal is to strive towards "high-performance" and productivity (Whitfield & Poole, 1997), which are so defined to suit and favour younger rather than older workers. With regard to this goal a major argument by employers and management against retaining older workers are the obsolescence of the skills and knowledge (professional competence) of the latter (Walker, 1996). However, the results of studies on age and obsolescence are inconsistent, suggesting either a positive, neutral or negative relationship between the two (Sterns et al., 1994).

The situation is partly due to the fact that the focus of both national and organizational policy - also guiding to a degree the orientation of research - has been on early pension policies launched by governments (although also negotiated and accepted by other social partners, such as labour unions - Walker, 1996). As a result, in firms there has been a tendency to associate older workers with pensioners (Solem & Myckletun, 1996), to view them as standing at the margin with regard to other employees, simply waiting to leave or to be allowed to go. In such a situation it is not surprising that in terms of organizational development policies - most importantly in the eyes of employers and management - older workers have largely remained invisible as resources or assets for firms and have not been proactively included in organizational development programs. Yet studies have revealed an ambiguity in employers' attitudes towards older work-

ers. On one hand their skills and knowledge are regarded as obsolete or lacking and their general value low, but on the other hand they are viewed as loyal and reliable - even more so than younger workers (Walker, 1996). Some organizations claim to have adopted age-aware personnel policies, but there seems to be a gap between intentions and their implementation (Rhebergen & Wognum, 1996; Walker, 1996). In practice HRD policies continue to focus on younger employees and they have had little effect on the career development of older workers (Rhebergen & Wognum, 1996).

Often the discussion on older workers is based on homogenizing views of this group, although studies in ageing have shown that heterogeneity increases with increasing age. As we need to be attentive to the heterogeneity of older workers, we also need to be attentive to different types of work and to the variety of opportunities and barriers for the learning and development of older workers within them. Lahn (in Lahn, Tikkanen, Hejden & Thijssen, forthcoming) has outlined the following "risk profile" for older workers in different vocational branches (Table 2). The table points out that the different objects of work in different vocational branches bear on different learning cultures and, further, on different risks for the learning and development of older workers.

TABLE 2. Risk profiles for older workers in various occupational branches

Type of work	Object of work	Learning culture	Risk pattern
Industrial work	Material	Apprenticeship	Risk of health Risk of early retirement Risk of lack of training Risk of low participation Risk of unemployment (downsizing)
Office work	Information	In-house training	Risk of obsolescence
Human service	Client	Experiential variety	Risk of health
Academic work	Knowledge (theoretical)	Professional specialisation	Risk of obsolescence

In addition to the effectiveness of early exit policies, the disadvantaged situation of older workers in firms is reinforced by employers' negative attitudes and stereotypical thinking about their productivity and benefit costs (Crown, 1991). However, this stereotypical thinking is not only to be found in job organizations and among employers and management, but also among the national policy makers. For example, the *National Workplace Development Programme (1996-1999)* by the Ministry of Labour, which aims at boosting productivity and the quality of working life, by enhancing the *full use* and development of staff know-how and innovative power in Finnish workplaces, acknowledged the special requirements set by an ageing workforce in a rather cheerless way: "*In future, ways of improving productivity and the quality of working life will be based on exploiting our strengths, such as know-how and cooperation and averting threats from unemployment, the ageing workforce and poor working conditions*" (<http://www.mol.fi/tyke/j122e/luku2e->

.htm). The way the older workers were viewed in job organizations became evident from the programme introduction, too, which argued that *ageing "hampers the transformation taking place in the structure of professions and occupations... (and) may retard the transformation of organizational cultures"*.

Empirical research focusing on attitudes and organizational cultures and climates with regard to older workers is scarce. One of the rare studies, by Sterns and Dorsett (see Sterns et al., 1994), focused on the updating of skills and knowledge. It showed that employees' age influenced behaviours oriented to the updating of one's skills in an unsupportive but not in a supportive organizational climate. The study concluded that "although characteristics of the individual play a large role in updating (and career development in general) organizational factors have the potential to enhance or disrupt this process" (Sterns et al., 1994, 11). Examples like the above indicate that it remains a major challenge for research to reveal the factual situation and consequences (in national and organizational policy making and on developmental opportunities for older workers) of the negative attitudes towards older workers in working life (McDonald & Potton, 1997; Solem & Myckletun, 1996).

To conclude, firstly, in the context of working life studies on older workers have most typically focused on describing and analysing current practices and policies. Due to the influence of the European Commission (EC) a significant amount of literature has also been produced aiming at gathering examples of good practice and policy, as well as at producing guidelines for enhancing further development within these domains. The second conclusion is that conceptually and theoretically oriented work is scarce, and has mainly taken place on the macro-economic level. However, the signs which have emerged of a stronger emphasis on practical knowledge could be interpreted to reflect changes in views concerning the relationship between theory and practice in studies on working life in the social sciences. In particular, the EC research policies tends to underline the close relationship between research and practice (see e.g. the guide for the Targeted Socio-Economic Research programme, TSER). On this view the former is at best when serving the latter. If a gap exists between these two - and this is a further interpretation to be made concerning research on older workers in the social sciences - it should not necessarily be seen as due to the ignorance of the practitioners about the knowledge produced by the researchers, nor due to the inability of the former to apply the knowledge produced by the latter. Therefore, rather than arguing that the current situation, with regard to studies on older workers in the working life context, reflects the fact that research on working life is a-theoretical, this latter line of thinking has adopted a different concept of "theory", "knowledge" and "practice" compared to traditional positivist approaches. This conceptualization, which is more common in the action research tradition and to which we will briefly return later, views theory and knowledge as closer to practice and the approach to practice as more "scientific", as these are applied in developmental work research and the work-related training of adults (Engeström, 1994), for example. In fact, the research policy within the EC has increasingly started to call for action research, although, the definition adopted seems to be somewhat weak.

2.3.2 Learning and education of older adults

At the same time as the discussion on older workers in general has increased, so has that on the learning and education of older people. With few exceptions in the HRM literature (e.g. Cahill & Salomone, 1987; Sterns & Doverspike, 1988), in vocational education (Bove, 1987; Redmont, 1986) and in gerontology (Sterns, Barrett, Czaja & Barr, 1994) this discussion has not really touched older workers, but has been focused on learning and education in non-work contexts. In fact, older adults in this latter discussion have been conceived as significantly older than those within the discussion about older workers. These studies have formed a new field, educational gerontology, within ageing research (gerontology, discussed further later).

The theories in mainstream adult education, whether within the objectivist paradigm ("the Western rational tradition" - including e.g. the majority of studies on participation - Article I), the interpretivist paradigm, or the more critically oriented theorizing or "emancipatory paradigm" (for reviews see e.g. Mezirow, 1996; Mulligan & Griffin, 1992; Usher & Bryant, 1989), cannot be argued to have excluded older learners from their scope. However, these theories have mainly operated under a youngish and middle-aged conception of "adulthood" and, thus, have less been applied to learning among older people, particularly in the working life context. Partly this is because of the overall lack of studies with a focus on older workers. For our purpose here mainstream research on the learning and education of older adults can be summarized as follows:

1. Focus has been on learning and education in non-work contexts.
2. Focus has mainly been on the group that has already passed the period of paid employment in their lives, that is, on retirees.
3. Research has for the most part followed the principles of positivism, focusing on empiricism and seeking universal, context-free and timeless factors to explain the issues related to learning and education among the elderly.
4. In these studies "age" has usually only been allotted the role of a background variable.
5. Theoretically and conceptually the research has been only vaguely analytical and uncritical.
6. The interpretations given to lower participation rates among older people found in these studies follow two lines of thought. According to the first, there is a tendency to view age as an explanation of lower participation (Article I). The second line of thought tends to hold that older people are less motivated and less willing to learn and develop themselves (Paice, 1996; Schneider, 1994; Uden, 1996). Yet, as pointed out by Plett (1990), lack of volunteering does not automatically mean lack of interest or motivation.

While a more comprehensive orientation, such as is often the case in qualitatively oriented research, has been rare, some examples do exist (Article I), also on older adults (e.g. Percy, 1996). With regard to the latter, such an orientation is particu-

larly found in studies conducted by older learners themselves, most typically at the Universities of the Third Age (U3As).

Although older workers per se have not been a focus of discussion in adult education circles, some of the characteristics of that discussion are highly relevant from their point of view. One of these is the increased role given to everyday experience in learning (e.g. Csikszentmihalyi, 1997; Kolb, 1994; Mulligan & Griffin, 1992; Tennant & Pogson, 1995). This line of research has mainly drawn on the metatheory of constructivism. Within constructivism man is viewed as "a scientist", for whom life experiences are basic material for gaining knowledge of the world (by continuous "negotiations"), for meaning making, and for the active constructing and reconstructing of the view of the self, others and reality (Kelly, 1955; Valsiner & Lawrence, 1996; Whitbourne, 1985). In work settings, too, the importance of everyday experiences for job-related learning and of work environments as central learning environments have gained increasingly attention (Marsick & Watkins, 1990). More generally, a consequence of this emphasis has been a shift away from considering learning in formal, academic settings to informal, non-formal and incidental learning.

Another point, related to the first one, is the view that effective learning is both self-contained and can be gained through action and by "doing" and reflection (Engeström, 1994; Schön, 1983). A high learning and educative value is given to everyday experiences drawn from practice. This line of thinking, which is partly derived from certain views on knowledge, holds that since knowledge is continuously produced and reproduced, we should preferably use more active terms, such as "knowing" (Blackler, 1995; Article IV), when conceptualizing it. This line of thinking can be found for example in action research, which has been widespread in studies of various organizations and organizational learning (e.g. Engeström, 1994; Gustavsen, 1996; Kauppinen & Lehtonen, 1993a; 1993b; Toulmin, 1996) and the development of work processes (e.g. Engeström, 1994; McNiff, 1988).

A major reason for the loose coupling of research into learning and education into later life and on that of older workers is that these discussions draw on different disciplinary backgrounds. While research on older workers, as shown earlier, has been based on sociology and social policy, but also to a degree on health sciences and medicine, that on learning and education in later life is based more on adult education and developmental psychology. In relation to this, another reason is the different status of these lines of research. In particular from the point of view of policy, research on learning and education in the working life context has higher status than research on learning and education in other contexts. The increased interest in both of these lines of discussion has contributed to the development of two relatively new fields of study in gerontology, industrial and educational gerontology.

The field of educational gerontology is broad, covering education for older adults, education about ageing, and the education of professionals in the field of ageing (Glendenning, 1990). While the education of caring professionals in particular has sharply risen during the last decade or so, in research on education for older adults the targets have been mainly retired or non-working persons. Industrial gerontology studies "ageing and work focusing on the employment and

retirement issues of middle-aged and older workers" (Sterns, 1990, 124). It includes a variety of areas, such as social policy and law, stereotypes, selection, job performance and appraisal, training and retraining, career development, job motivation, organizational design, retirement, etc. (Sterns, 1990). In the 1980s studies focused in particular on the relationship between technology, ageing and work (see e.g. Beauchesne-Florival, 1990; Charness, 1990; Harootyan, 1990; Straka, 1990a). Activity in industrial gerontology was high, in particular in the United States at the end of the 80s and turn of the decade. Although more recently activity within industrial gerontology appears to have subsided in the US, in Europe it has started to increase, although empirical studies are still rare. One example of these studies is the WORKTOW-project (Lahn, Tikkanen, Lyng et al., 1997) about change in the working life and training of older workers.

Given that the independence of education as a discipline has always been debatable, it is clear that ultimately educational gerontology shares disciplinary roots with industrial gerontology (most importantly from sociology, psychology and economics). In fact, they have an even more extensive common background, since both of these disciplines draw on gerontology, too, the work on older learners more strongly than that on older workers. In fact, the latter has sought for the arguments relating to work within human resource management (HRM) and development (HRD) in working life (e.g. Cahill & Salomone, 1987; Sterns & Doverspike, 1988), as shown earlier. Regardless of their partly shared disciplinary background, these two lines of research have been developing separately from each other rather than following a shared path.

One crucial consequence of the above described split in research is that no general conceptual framework or model exists on which to base discussion and developmental efforts on the learning and education of older workers in practice. In real life, however, the issues of older adult learning and older workers in the working life context are increasingly being viewed as one, rather than separate. Therefore, both of these research traditions could contribute to each other in valuable and needed ways. Not only in enhancing developments within both domains, but more importantly, in enhancing the development of various solutions in learning and education among and for older workers, which are more relevant to their situation in practice than those emerging from within adult education in general. An interesting question from this point of view is, then, whether gerontology can provide a new platform for a shared understanding and, as such, work against the increasing fragmentation within disciplines, against the "excessive specialization" characterized by positivist models of thinking (Bourdieu, 1990, 39)?

2.3.3 Life-long development and ageing

What studies on ageing have perhaps most importantly contributed to research on older learners (educational gerontology) and on older workers (industrial gerontology) is the life-span or life-course orientation. The term adopted to describe this perspective within psychology is "lifespan developmental psychology" (e.g. Baltes, 1979; Valsiner, 1994; Valsiner & Lawrence, 1996) and within

sociology (e.g. Bengtson & Allen, 1993) and sociologically oriented social-psychology (e.g. Elder, 1994) "life-course approach". Both of these developments closely relate to and contribute mutually to the development of the discipline of gerontology. From the very beginning the latter has adopted a life-span or life-course perspective as one of its main characteristics. In work in the field the term life-course has been adopted to cover both the psychological and sociological orientation, in order to avoid the negative connotations (inverted u-shape) attached to the term life-span as a descriptor of human development throughout life.

The main issues of interest for the discussion of learning and education among older workers in the life-course developmental model centre around the views on individual (socio-genetic) change and development in later life. In developmental psychology an ordered orientation to change has traditionally been adopted towards childhood and a stability orientation towards adulthood (Schroots, 1995). While theories on adult development, that is, views on adulthood as a continuous process, have also emerged, they have been characterized by prescribed (normative) and teleologic narrative. The latter is present in particular in stage models (Sugarman, 1990), such as for example in the works of Erikson, Havighust and Levinson. In addition to this mainstream thinking there is another line of thinking in psychology, which emphasizes the existence of individual variability in development (Baltes, Dittman-Kohli & Dixon, 1986; Bertaux, 1982; Karp & Yoels, 1982). Yet our conceptualization of adulthood development has for decades rested on and been dominated by rigid stage models. These models have partly contributed to our tendency to homogenize, in particular when speaking about older people. During the last decade or so, however, multidisciplinary - another central characteristic of gerontology - and more open views on human life-course development have gained a firmer foothold. Some of the significant life-span or life-course oriented developmental perspectives are presented in Table 3.

As Table 3 suggests, life-course development is a multilevel phenomenon (Elder, 1994, 5) with a broad view on the relationship between change and development. In general, the theoretical and analytical dimensions on human development, which the life-course perspective has made more salient are time, context, process and meaning (Bengtson & Allen, 1993; Elder, 1994). Thus, by and large, the current theorizing in life-course developmental studies also builds on principles of social constructionism (Bengtson, Burgess & Parrott, 1997). Life-course development is also increasingly seen in systemic terms (Bengtson & Allen, 1993; Kindermann & Valsiner, 1989), and change (defined as development) is seen as open with regard to its direction. Further, change and development are conceived as fundamental human characteristics of the total human condition rather than belonging to any one period in life (Valsiner & Lawrence, 1996).

In fact, the life-course orientation in psychology and sociology reflect another more general shift of orientation within the social sciences. This shift underlines a tendency away from studying spatial organization only to also studying temporal organization, that is, from studying states, stages, traits etc. to

TABLE 3. Basic assumptions of some “life-span” or “life-course” developmental perspectives

Bengtson & Allen (1993) (sociology):

1. The importance of multiple temporal contexts of development
 - A. Ontogenetic time
 - B. Generational time
 - C. Historical time
2. Multiple social contexts of development
 - A. Sociostructural location
 - B. Social construction of meanings about development and life events
 - C. Cultural context and change
 - D. Interplay of macro-micro levels on development
3. Diachronic perspectives on development
 - A. Dialectics of both continuity and change over time
 - B. Age, cohort, and period effects on development
 - C. Feedback: reciprocity of change effects
4. Heterogeneity in structures and processes associated with development
 - A. Diversity and difference
 - B. Increasing diversity over time with aging
 - C. Increasing diversity over time with social change
5. Utility of multidisciplinary perspectives on development
 - A. Psychology: individual ontogeny of development
 - B. Sociology: social contexts of development
 - C. Demography: population contexts of development
 - D. Anthropology: cultural contexts of development
 - E. History: event contexts of development
 - F. Economics: capital contexts of development
 - G. Biology: genetic substrates of development

Elder (1994) (sociologically oriented social-psychology):

1. Relations between human lives and changing society (cohort and period effects)
2. Timing of lives
 - incidence, duration and sequence of roles
 - relevant expectations and beliefs based on age
 - scheduling of multiple trajectories, their synchrony/asynchrony
3. Linked or independent lives
 - interaction between the individual's social worlds over the life-span
4. Human agency; the actor as a constructor of his or her life-course

Baltes (1987) (psychology):

1. Ontogenetic development as a lifelong process
2. Multidirectionality of developmental changes
3. Joint occurrence of gain and loss in the course of development
4. High intraindividual plasticity in development
5. Developmental change embedded in a historical context
6. Importance of contextualism-related theoretical principles
7. Multidisciplinary approach

Valsiner (1994), Valsiner & Lawrence (1996) (developmental psychology):

1. Persons' active constructive roles in any encounter with culturally organized meaningful contexts
2. Semiotic nature of human development
3. Development as intricately tied to irreversibility of time

the study of processes, change and development over time, to studying becoming rather than being (Gavrilov & Gavrilova, 1991; Gleick, 1996, orig. 1988). This is probably the broader background to the suggestions by some scholars (e.g. Elder, 1994; Bengtson & Allen, 1993) that gerontology is an emerging new paradigm. While there are indeed signs of a strengthening of this line of thinking in various disciplines, it is, however, a very risky business to argue that it is gerontology which is emerging as a new paradigm, rather than its development being only a reflection of a broader general development in the social sciences. In this broader development steps taken in one discipline feed new ones in other disciplines. Historically concerns with the notion of life-span originate in 18th and 19th century European thought and the interest in human life-course development dates back to the Vienna Psychological Institute of the 1920's and (Valsiner & Lawrence, 1996). Therefore, on the basis of a development that has mainly taken place during the last a couple of decades in gerontology, it is premature to argue that a whole new paradigm is currently developing.

A distinguishing feature of the current life-course thinking is that it is diffused across disciplinary boundaries in the social and behavioural sciences (Elder, 1994). This feature is in contradiction with the increasing specialization and fragmentation which has characterized development in various disciplines and which has made communication between them increasingly difficult (Habermas, 1984), sometimes even impossible. In sum, the main characteristics of the life-span perspective, or the "family of perspectives" (Baltes, 1987, 612) embracing various models (Marshall, 1995), can be summarized as follows:

Traditional thinking:

- development as universal
- particularities, seriality
- linearity of development
- old phenomena, development relative to past
- controllability
- determinism (structural, genetic) - and organicism

Life-course thinking:

- sensitivity to phenomena, uniqueness
- integration, systems-approach (holism)
- open systems, multidirectionality
- novelty in phenomena, development relative to future
- relative uncontrollability
- human agency, constructionism

For our purpose here, life-course development relevant to the cognitive domain requires a closer look. There are two central issues in current views on cognitive and intellectual development of relevance to learning and education among older workers. First, studies (e.g. Dannefer & Perlmutter, 1990; Labouvie-Vief, 1985; Smith & Baltes, 1990; Willis, 1985; 1987) have shown that change and development in cognitive functioning continues throughout adult life. While these changes may bring decrements in some areas or functions in later adulthood, there are wide individual differences in the timing and rate of the decline. Further, there is a plasticity in cognitive functioning through which functional decrements can be compensated or remedied by other domains or functions. Plasticity is a central aspect in findings, showing that like physical functioning, cognitive functioning can be improved by appropriate practice and training (Salthouse, 1987; Willis, 1987). A central question, although still largely open, in cognitive

training research is determining the range of plasticity or variability in cognitive performance at older ages, as a function of behavioural intervention (Willis, 1987).

Second, research on cognitive development throughout the life-course has changed its focus from the traditional emphasis on academic intelligence to emphasising the role of everyday experiences in the development of "everyday cognition" or "practical intelligence"⁷ (Dannefer & Perlmutter, 1990; Poon, Rubin & Wilson, 1992; Rogoff & Lave, 1984; Schwebel, Maher & Fagley, 1990; Smith & Baltes, 1990; Thornton, 1986) and "everyday competence" (Willis, 1987, 1991). That is, intelligence is no longer identified with what IQ tests measure. Rather, cognitive development is increasingly viewed as based upon the expertise gained from dealing with concrete problems and situations at work, in the home, and in community life (Tennant & Pogson, 1995, 33). Therefore, in resemblance to the situation in adult education discussed earlier, studies of cognitive development in adulthood are showing a tendency to move away from using abstract and artificial material and artificial contexts in studies (Kuhn, 1990), that is, from academic problem solving toward everyday problem solving. While the traditional orientation in cognitive studies focused on basic abilities and processes representing (genotypic) processes of intelligence, which are relatively context- or culture-free, everyday competences are represented in the activities of daily living, being (phenotypical) expressions of intelligence which are context- and/or age-specific (Willis, 1991). Everyday competence represent the potential or capability of the individual to perform certain tasks, not necessarily his or her actual observable behaviour (Willis, 1991).

Tennant and Pogson (1995) have interpreted this trend to mark a turn that has taken place in the ancient division between practical activities and theoretical thought. While traditionally in Western culture the prestige of theoretical and academic thought and work has been high relative to manual work, we are now witnessing a situation in which practical work is being accorded as significant a role, if not often more so than theoretical thinking. The change is becoming evident not only in research but also in the shift towards the increasing implementation of competence-based training (Tennant & Pogson, 1995; Willis, 1991).

At the first glance this second trend in cognitive development appears promising, given the value of the knowledge and skills of older workers, which is mostly experience-based. However, caution in forming conclusions is needed, because in terms of conclusive outcomes research on the role of experience in cognitive development (skills, knowledge, attitudes) and performance is still in its infancy. The central problems in the research deal with the terminology used in defining competence as well as with developing measures for analysing and examining it (Willis, 1991). The following overview on studies of the role of experience is based on Salthouse's (1987) work. As an example of the ambiguous state of the findings so far he looks at the various studies on life-span cognitive development, which have suggested that fluid abilities decline and crystallized abilities remain at a stable level or even increase with age. Yet, as Salthouse points out, if that is the case:

⁷ Practical intelligence is referred to as expertise, when applied in the context of a particular domain of work or knowledge (Tennant & Pogson, 1995).

“why, in the light of the greater experience of older adults, there are so few reported increases in crystallized ability across adulthood. That is, if crystallized abilities primarily depend on cumulative experience, and if adults in their 60s have had about 40 more years of experience than adults in their 20s, why are the former not markedly superior to the latter in the performance of experience-dependent tasks rather than merely performing at roughly comparable levels?” (Salthouse, 1987, 138)

Although examining Salthouse’s hypothetical answers to the question is beyond the scope of this study, it is important to note that there is great variety in everyday experience and the resulting outcomes and influence on individuals. The accumulation of (any) experience by age does not, as such, necessarily lead to higher levels of performance. While there is little overall consistency in the research literature, the studies on the relationship between age and performance in occupational activities suggest that the nature of this relationship depends on the level of experience possessed by the worker as well as on the type of job and the specific measure employed. Although research has provided convincing evidence showing that adults of all ages benefit from experience, the mechanism responsible for the improvement associated with experience is still unknown. When it comes to the relationship between an individual’s level of performance and his or her age, the conclusion “for most practical purposes”, as suggested by Salthouse (1987), is that “the more important question may not be the individual’s age, but his or her level of expertise in the activity of interest” (p. 152).

The life-course approach has also been applied to career development. The studies within this approach also point out that it is not age, as such, which determines career development activity or non-activity (Sterns et al., 1994). Rather, there is a wide variety of factors that influence career attitudes and behaviour (e.g. updating of skills and knowledge) during the course of a career. From a career developmental point of view a central question is how long will workers’ skills and knowledge remain current (Sterns et al., 1994). Within a rapidly changing working life the question is valid for workers of any age. In fact, the whole concept of career is changing from one of advancement within a trade or profession, as a result of experience and qualifications, to one emphasising mobility across professions and branches of activity (see Collin & Watts, 1994; Wijers & Meijers, 1996; and “*Perspectives: A job classification to facilitate occupational mobility*” (no author named) in *International Labour Review* 2/1994). The emphasis on the individual and the “worker’s profile” is increasing in importance, as well as the role of development in learning and work throughout life. Rigid job definitions are being replaced by flexible descriptions of the aptitudes, knowledge and skills required from the individual worker. In this sense the notion of career comes very close to the notion of lifelong learning and development.

2.4 Towards productive ageing

Sometimes it is useful to turn a problem in question upside down and take a moment to think backwards. Thus: Why should we keep the older workers employed? Why train older workers? Why introduce learning and education in middle-age and later adulthood? When thinking about the “youngest” older workers, according to the definition adopted here, the answers are so obvious that the questions sound naive. However, the “older” the older workers we have in mind are the more complicated the answering gets. Nevertheless, it is clear that we should have constructive answers to these questions for the whole target group, in order to make a case for learning and education among older workers. In addition to a simple “Why not?”, answers can be sought in many directions. However, there is one central aspect in these answers to focus on: productivity, in organizations and among individuals.

In relation to working life in recent years there has been an intensification of interest by human resources management throughout the industrialized world in the question of organizing employment to enhance organizational performance (Whitfield & Poole, 1997). High Performance Work Systems have been adopted as a leading strategy to increase productivity, although there is great heterogeneity in these models and the speed of change in this area is fast. However, typical features of them include employee involvement in decision making, (team and lean production), careful attention to recruitment and selection, extensive training (HRD) and contingent pay (Whitfield & Poole, 1997). These characteristics clearly favour younger, dynamic workers. Consequently, it seems reasonable to argue that increasing adoption of high-performance systems in working life has contributed to a fall in the value of older workers, resulting in a rise in age-discriminative practices. As a response to these discriminatory practices and stereotypical attitudes the concept of “productive ageing” has emerged over the past decade (O’Reilly & Caro, 1994).

In principle there is, therefore, an obvious socio-economic answer to the above three questions: to enhance productivity in job organizations and productive ageing in society and on the individual level. In practice, however, much depends on the definition of the tricky concept of productivity. With regard to the latter reference is made to such aspects as activity directed to the production of goods or services, paid or not, or developing the capacity to produce goods and services (O’Reilly & Caro, 1994). The problem, however, remains what activities are considered to be productive and what capacities are to be developed for productive purposes. Morgan (1988, cited in O’Reilly & Caro, 1994) has defined the central issues or major barriers in productive ageing as 1) economic and legal, 2) social and organizational, and 3) environmental. However, such a socio-economic approach is limited, because it ignores psychological (“successful ageing”, personal enrichment) (O’Reilly & Caro, 1994) and cultural aspects of productivity.

A somewhat broader characterisation of the central issues in productive ageing is adopted here, drawing from the review of the literature presented earlier. The central issues as well as barriers, function on all three levels: individ-

ual, organizational and societal. From an individual point of view a broad view of productive ageing, ideally, comes close to "good and full-fledged life". From the point of view of organizations it means valuable and useful employees (workers) as long as they participate in labour market. Finally, from the point of view of society this ideal would mean active, independent and contented citizens regardless of their age (but depending on other characteristics, such as health). The latter has been the goal in the calls for "ageless" (similar to genderless and raceless) society. As it is, however, age is a central factor used in constructing the structures of modern societies. Therefore, abandoning generally the use of chronological age in various decision making in society requires, somewhat ironically, first to become aware of its central (and loosely-grounded, unequal and, as such, adverse) effects. An indication of the latter in working life is the call for an age-aware management and age-aware human resource management.

Ultimately, the grounds for fully-fledged participation of older workers, in learning and other developmentally oriented activities, have to do not only with knowledge and attitudes but also with (good) will. Taking such a view as a point of departure means that socio-economic factors appear as consequences of the former, although they have come to be viewed rather as their cause. In fact, as modern societies develop further it becomes increasingly difficult to make a distinction between causes and effects. Here it suffices to acknowledge that productive ageing is a matter of potential and actual competences (attitudes, knowledge and skills) and of cultural, environment and structural-economical factors.

Attitudes. Attitudes are a broad and powerful barrier - as they can be incentives - which refer to both older workers themselves as others, such as employers, co-workers, and general public. While those held by employers and line management towards older workers may be negatively coloured and undervaluing, the attitudes of older workers can likewise be negatively coloured towards themselves, as workers and/or as learners. As has been pointed out (e.g. Walker, 1996) the disadvantaged situation of older workers is also a result of self-fulfilling prophecies at play in working life. On the other hand, the attitudes of older workers can be also less developmentally oriented (less positive) toward their age, toward work (interest, commitment) and toward education and training.

Skills and knowledge. While older workers may have special strengths and unused resources, developed during their long job experience, they may also have shortcomings or obsolescence in their skills and knowledge. Through the latter, the barriers for employment are also related to possible further problems in occupational mobility ("flexpertise" or adaptive expertise - Hayden, forthcoming). In terms of productive ageing, the value given to the existing, experience-based skills, knowledge and attitudes of older workers appears crucial not only in terms of factual opportunities but also of willingness to utilize them in working life. Further, from the point of view of productive ageing not only job-specific and job-required skills and knowledge, but also the continuous enhancement of the more psychological (e.g. self-enrichment) and social skills (e.g. communication) and knowledge appear central.

Cultural factors. These factors refer first to the organizational culture and issues related to management, human resource development, communication, etc. Second, they refer to differences in cultural values in learning and education

between older workers (Liebig, 1988) and the (younger) providers of education, in particular to the possible insensitivity of the latter with regard to the former. Further, differences in cultural values may disturb or inhibit learning and development in the intergenerational exchange of knowledge, be it in education or in working life.

Environmental factors. These barriers to development refer to job organizations as learning environments. As such, the barriers to development relate mainly to ergonomic factors, but also to occupational health. Further, these barriers are related to cultural barriers in that they also draw on issues in the social environment, such as the organizational climate, and practices in management and communication.

Structural and economic factors. Within this area the barriers to learning and development refer mainly to the labour market, but can also be found within a company. Structural factors, typically heavily built on age categorization, also have to do with policy making with regard to labour, education and pensions.

3 COMPLEXITY OF LEARNING AND EDUCATION OF OLDER WORKERS - Summaries of the articles

The four articles are a selection of the publications written for my study *Education and Training of Older Workers*. The first (I) and the third (III) articles are empirical studies using data from the national Adult Education Survey 1990 by Statistics Finland. Both of them concern methodological issues in participation studies on the one hand and the factual basis of negative stereotypes about ageing on the other. The two remaining articles are reviews on lifelong learning with regard to human resource development (Article II) and on the views of knowledge and job competence (Article IV), examining the implications on the situation of older workers. Below, Table 4 first lays out the purposes and outcomes of the articles in brief. This is followed by a brief summary of the purpose, central arguments and findings as well as conclusions of each article.

3.1 The age-participation relationship revised: focus on older adults (I)

The purpose of the study was two-fold. The first was to evaluate critically the statistical methods adopted in studies on participation and their broader consequences. The most crucial consequence was argued to be an incompatibility between basic theoretical and methodological assumptions concerning participation and the stagnated state of theorising. A central argument of the study was that the way statistical methods are used, and sometimes the statistical methods themselves, have for their part contributed to the negative age-participation relationship generally found in studies and manifested in ageist attitudes. Bivariate analyses, which often form the basis of this relationship, have generally been interpreted to mean that higher chronological age, as such, is an explanation for low participation. Although multivariate analyses have also been used, they have usually only focused on the main effects among the variables, neglecting the interaction effects. Since the theorizing about participation in adult education

TABLE 4. The purposes and outcomes of the articles in brief.

Article	Purpose	Outcomes - findings & conclusions
I <i>The Age-Participation Relationship Revised: Focus on Older Adults</i>	Point to the consequences of the use of the statistical methods adopted in studies on participation; re-examine the age-participation relationship by an empirical study using a different statistical methodology, loglinear models.	Most crucial consequence is the incompatibility of the basic assumptions in current theorizing on participation and the research methods used; by using more sophisticated statistics (loglinear models) compatibility can be improved and a more coherent conceptual understanding on participation developed; education appeared a more crucial factor in participation than age; there is great heterogeneity in participation in any age group.
II <i>Ageing Work Force and Lifelong Learning: an Organizational Perspective</i>	Examine the development and challenges of human resources management from the point of view of an ageing work force.	Five developmental phases in HRM were outlined; the challenges faced by older workers in relation to their job competence and to overcoming the negative stereotypes also adopted by themselves; for organizations the challenges were to tackle the mismatch between traditional views on HRM and the current dynamic organizational culture; for both of these the challenge is to adopt an open and future oriented rationale in both organizational and individual development.
III <i>Interest and Participation in Adult Education among Ageing Workers</i>	Study further the factual basis of the negative stereotype concerning participation by examining the age-participation relationship from the point of view of attitudes.	The stereotype was not supported; model for participation different for men and women; since interest in education (attitude) had a strong impact on participation, the conclusion was that increasing the basic educational level does not automatically lead to high motivation and a high level of participation throughout life - instead, the meaning of education is a personal construct affecting on participation.
IV <i>Perspectives on the Professional Competence of Older Workers</i>	Examine the tension between the low labour market value of experienced workers and the high value of job experience reflected in current theorizing about professional competence in adult education and working life.	Multidimensional, change-oriented view on competence emerging, also acknowledging experiential knowledge; our understanding of the true value and significance of job-experience is still vague; as the value of experiential knowledge has increased in theorizing and practice, the value of more experienced workers has actually decreased.

has developed towards a holistic or comprehensive view, with complex interactions acknowledged, it follows that these basic assumptions are in contradiction with the statistical assumptions adopted. Secondly, the relationship between increasing age and decreasing participation was re-examined in an empirical study. The study used a more advanced statistical approach, loglinear models, than most of the existing research, which has commonly found evidence in favour of the existence of this relationship. In a sense, then, the study also re-examined the factual basis of the negative stereotypes concerning the age-participation relationship.

The findings showed, firstly, that although in the bivariate statistical analysis a negative age-participation relationship was found, the use of statistical methods with options, which allowed for and acknowledged multiple interaction effects among the variables (loglinear models), led to results that in general did not confirm the relationship. Rather, they showed it to be a more complex one. Secondly, educational background appeared a more important factor affecting participation than age. Yet, the effect of education was a joint one with interest in education on the one hand and with age on the other. Thus, the effect of age appeared modest and indirect, operating in interaction with educational background.

Three main conclusions were drawn. The first referred to the research methodology. The study concluded that the match between comprehensive, more holistic theorizing on participation in adult education and methodological assumptions in statistically oriented research can be improved by allowing for complex interaction effects among the variables. Second, by using more sophisticated methods in participation research than has been the case thus far, it would be possible to start piecing together our knowledge about participation by the stepwise construction of a more systemic and coherent conceptual understanding of participation behaviour. Thirdly, rather than focusing on chronological age, we should acknowledge the heterogeneity regarding participation in adult education in any age group, to a large degree due to differences in educational background.

3.2 Ageing work force and lifelong learning: an organizational perspective (II)

The purpose of the paper was to examine the development of and challenges facing human resource management (HRM) in organizations as a result of the ageing of the workforce. The focus was on the continuous changes taking place in both organizations and their employees with time, and on the consequent requirement for increasing learning on both levels. A core assumption in the article was that since most people derive the sustenance and structure of their lives from various organizations (Handy, 1996), job organizations representing the most important of these, then they also provide one of the most important contexts for and contributions to lifelong learning and development (or non-learning and stagnation) on the individual level. The paper therefore argued that the HRM

policies and practices adopted in work organizations - relative to workers of any age - is of central importance in defining the framework for and in influencing learning and development among employees.

The paper first outlined four rough developmental phases in HRM in organizations. It was concluded that the options for ascribing a higher value to older workers appeared to go hand in hand with the value assigned to experiential knowledge as a valuable source of development and innovation in organizations.

Second, the challenges for HRM were outlined. The first was how to realize the vision of people as the main assets in job organizations, in which growing numbers of the staff are defined as older. The second dealt with how to convince employers that progress and development in an organization is possible, and presumably even more advantageous, by developing the very same employees rather than at ever younger ages replacing the older members of the staff by younger, and, presumably, more "developed" ones. That is, on the one hand, how to convince employers of the ideas held by developmental psychologists that life-long learning and development in the various domains of human conduct is possible, if it is only nursed and nurtured; and on the other hand, how to make employers to see the competitive advantage in knowledge, skills and attitudes (competence) based on job experience and not only in fresh education and training-based competence.

Thirdly the challenges facing older workers were considered. For older workers their ageing was pointed out to mean a double jeopardy. On one hand they need to strive hard to keep their knowledge and skills up-to-date - an issue which is increasingly seen as their personal responsibility rather than that of the employers. On the other hand this needs to be tackled in a hostile climate of negative, homogenizing and stereotypical attitudes toward them. The latter is often also adopted by older workers as a basis for their feelings of unworthiness. One of the crucial characteristics of this climate was that the strengths of younger workers are emphasized while at the same time their weaknesses are disregarded by their employers, whereas with older workers the situation is more or less reversed.

The paper concluded that one option for improving the situation in the future could be the adoption in management of a more holistic approach as a basis for the development of job organizations. Such an approach, which is also the aim in High Performance Work Systems (Whitfield & Poole, 1997), would be based on the balanced integration of different strategic and business-related goals and actions in HRM. However, they have typically been treated in a piecemeal manner and goals more related to personnel development have been viewed as less important than some other goals. Another conclusion was that the rationale of prevention and reaction in education and training policies in job organizations and the labour market indicate a backwards orientation (based on familiar and already known issues and problems). Although this rationale is useful and necessary in many cases, it should, however, be complemented by, sometimes displaced by, more proactive thinking (Handy, 1996). The latter emphasises an orientation towards the future, novelty and innovation in defining and solving crucial problems and challenges.

For the development of my thinking this paper marked a beginning in viewing the different perspectives on knowledge and competence as key issues when looking at the needs for and trends in development in working life, both at the level of individuals and of organizations. It also encouraged problematizing the situation of older workers, their learning and training in particular, with regard to these different perspectives on knowledge. Consequently, several of the issues brought up in this article were further elaborated in the fourth (IV) article. The thesis I developed in my mind was that if the experience-based knowledge and skills of older workers were obsolete as argued (Walker, 1996), then one needs first to look deeper at the nature of the knowledge and skills requested and valued in current working life. Only after such an analysis would it be possible to make a start on finding out how to improve the situation relevant to older workers.

3.3 Interest and participation in adult education among ageing workers (III)

This article was closely related to the first article (I). However, the focus was now on gender and attitudes toward (defined as interest in) adult education. The purpose was to examine the age-participation relationship from the point of view of these attitudes, among employed men and women aged from 40 to 64 years. By modifying the approach only slightly from the model provided in (I), this study aimed to respect to the methodological call for a "stepwise construction of a more systemic conceptual understanding of participation behaviour", made in (I). Again the presumption was that the relationship was not a direct one, but that participation was the result of complex interaction effects with age and interest in education. The study also examined the stereotypical notion that with increasing age people are less interested in education and, therefore, more reluctant to participate (Paice, 1996; Uden, 1996).

A weak negative bivariate relationship was found between age and interest in education within the total sample, but not for women and men separately. That is, the results did not give evidence in favour of decreasing interest in education with age. Different participation patterns or models were found for each sex. Among the men, age was found to influence participation only indirectly, through the interaction effects with educational background and with interest in education, the latter two having a joint effect on participation. Among the women participation appeared as a more complex phenomenon than among the men. Participation was influenced by age-education and by interest-education interaction effects.

The conclusions concerning methods supported the findings of (I). A further conclusion was that participation is a different phenomenon for men and women and should be treated accordingly. Further, interest in education appeared to go hand in hand with educational background - not with age. This suggests that age is not the central variable to focus on when considering participation in education throughout the life-course. An implication for practice was that for the purpose of developing better targeted and marketed training courses and educational programs, the findings of studies using a more comprehensive methodological

orientation, such as here, are more helpful than studies producing “checklists” of the various deterrents and/or motives for participation (see also Tennant & Pogson, 1995). A further implication of the study was that in each age-group individuals constructs their own personal meanings of education on the basis of their personal experiences within that system.

This study pointed to both the advantages and limits of the use of advanced statistical methods. The advantages have already been commented upon above. The limits related to the survey-method in general. If one wants to deepen one’s understanding of participation behaviour among older workers in order to further develop the kinds of education and training to be made available to them, simply carrying out more and more surveys as such is hardly the most productive way to proceed. Rather, research methods which take the researcher closer to practice are needed. Similarly there is a need for education and training programs developed in closer contact with the particular target groups. Carefully targeted surveys can be used for the purpose of gaining valuable pre-information for planning of such developmental programs. Yet, it is necessary that the actual planning takes place in context and with the subjects in question. From this point of view the requirement for total objectivity on the part of the researcher becomes questionable. However, this closer-to-real-life approach should be viewed as a complementary to the existing provision of education, rather than displacing it.

3.4 Perspectives on the professional competence of older workers (IV)

In this article the purpose was to examine the tension between the low labour market value of experienced workers and the high value assigned to job experience and experiential knowledge in current theorizing about professional competence in adult education and working life. The study first reviewed two broad perspectives on knowledge and their implications for views on professional competence. Second, the implications of these perspectives were discussed relative to the current situation of older workers in working life.

The article was based on two central argument. First, the transformation in perspectives on knowledge - from modern theoretical-abstract knowledge toward more practical, grounded and circumstantial knowledge - taking place within various disciplines, industry and technology, is also reflected in views about professional competence in working life. Therefore, it bears on the situation of older workers, too, and merits consideration in this context. The second argument, however, maintained that within this context the basic assumptions of these changing perspectives on knowledge and professional competence run counter to existing practice in working life.

Drawing on a review of different perspectives and developments on knowledge, the article concluded that a broad, multidimensional and change-oriented or developmental view (Willis & Dubin, 1990) of professional competence appears to be emerging. This new perspective was held to be displacing traditional views,

which define competence in static, either individual- or job-related terms and aim at a static fit between an individual employee and the tasks that constitute his or her job.

The implications for the situation of older workers were considered relative to age-discrimination, homogenizing and stereotypical views of their job competence, increasing their labour market value, and supporting the practice of lifelong learning and education.

- *Age-discrimination*: The broad concept of professional competence allows us to consider structural aspects as a factor in play when viewing occupational competence. It was argued that the main reasons for excluding older workers from the labour market have more often been the socio-economic or cultural-political factors in play at the time in the labour market rather than any proven lower professional competence compared to their younger counterparts.

- *Homogeneity and the job competence of older workers*: Referring to the view adopted in the second article (II) about work environments as central learning environments during an individual's lifetime, a moral-ethical implication was brought up with regard to the heterogeneity or homogeneity of the job competence of older workers. On a broad view of competence it follows that arguments about the static state of the skills, knowledge and attitudes (competence) of an older worker, are not to be seen from the individual point of view alone, but also relative to organizational policies and practices. If stability has been the prevailing mode in a firm, as has been the case up to now, the question arises why we should put the blame on the older workers and make them carry the detrimental consequences (as has also predominantly been the case), when that mode is changing. A further question is, whether the development or updating of the skills and knowledge of these workers should not also be the joint responsibility of the individual, the firm and society. There clearly is a need for a broader understanding of the contextual origins and value of mature experience, if the existing paradoxes in working life are to be removed.

- *Labour market value*: Team work was suggested as a promising means of increasing the value and utilization of the knowledge and skills of older workers in organizations. The broad approach to competence implies that challenges for developing means that could improve the labour market value of older workers are set at all levels in working life, individual (e.g. motivation, skills, knowledge), organizational (e.g. attitudinal climate and economic aspects) and national (development of more integrated policies among authorities responsible for older workers).

- *Enhancing lifelong learning* requires the adoption and application of a more generation-balanced view, rather than continuing simply to emphasize the strengths and optimism believed to be possessed by younger workers ("they do not have all the know-how required, but they will learn") and the weaknesses and pessimism thought to characterize the older ones ("they do not have the know-how required, and they will not learn, neither want to learn"). It was argued that a formal educational system alone, no matter how extensive, cannot produce lifelong learners, unless this orientation is also supported and nourished throughout an individual's working life.

The article admittedly aimed to put forward the arguments pro older

workers, and as such was not as impartial as we are taught a scientific paper should be. This was partly due to the forum the article was written for (to honour the Grand Old Man in European educational gerontology, Frank Glendenning), and, as such, was a deliberate choice. Thus, while the paper discussed the ideal picture or optimal situation from the point of view of the learning and education of the older worker, it also considered ways of reaching this ideal. The view provided for us by current theories of adult learning and education, which underline the value of experiential knowledge and learning, implies that older workers are an unused potential and resource in working life. However, it appeared that these theories are weak when it comes to dealing with the processes through which experience is transformed into knowing and learning. We still lack means to deal with the variety of experience (see e.g. Tennant & Pogson, 1995).

4 CONTEMPORARY ISSUES AND FUTURE CHALLENGES IN POLICY AND PRACTICE

A central issue in the concern for learning and education among older workers in Europe is the (re)integration of this part of labour force into the labour market. Working towards that goal involves many factors and many players, whose interests do not always run parallel. I shall now summarize the most important contemporary issues and future challenges in research and policy with regard to learning and education among older workers.

1. *Unbalanced participation.* With increasing age participation decreases; older workers are also both less likely to get training provided by their employer and to participate in learning activities.
2. *Diversity of provision.* Beyond individual concerns (e.g. motivation, needs, resources, health), participation is a matter of supply (availability) of and access (social, cultural, geographical and economic barriers and incentives) to various learning options within an education and training system.
3. *Work and experience - not age - is the issue.* From the point of view of working life, it is more advantageous to consider participation in the broader context of the job organisation and the labour market, rather than to focus solely on age and other individual characteristics of the older worker (often within a "deficiency framework").
4. *Fragmented policy and practice.* An integrated policy, and likewise practice, is lacking; the participation of older workers in education and training is a complex matter at the intersection of labour policy and educational policy, and related to a degree also to social (pensions) policy.

The following sections are an overview of and a commentary on each of the above points of view on the learning and education of older workers.

4.1 Participation of older workers in education

While over the long term participation rates in education have increased in all age groups, there is a significant variation in the extent of participation across Europe. Table 5 shows participation rates in adult education among employees over 30 years of age in the EU countries. As indicated in Table 5, the participation rates are the highest in the Nordic countries and the lowest in the southern European countries.

TABLE 5. Participation in training of employed persons aged 30 years and over (%)

Country	Participation rate	Country	Participation rate
Sweden	17.6	Germany	3.6
Finland	16.7	Italy	3.1
Denmark	16.2	Belgium	2.7
United Kingdom	11.8	Luxembourg	2.6
Netherlands	11.6	Spain	2.1
Austria	7.5	Portugal	2.1
EU	5.6	France	1.6
Ireland	5.2	Greece	0.4

Source: EU Labour Force Survey, 1996. Eurostat, Luxembourg.

Statistics show also that participation rates are generally lower in the older age groups (Employment in Europe, 1996). Some examples of the situation in different countries are presented in Box 1. However, as pointed out in the empirical articles (I, III) this view may be overly homogenizing with regard to the participation of older people and thus partly be "technically" produced. There are groups among adults whose participation in education is always low and others for whom it is always high, regardless of age. Also, there are other groups in which participation recurrently peaks at some points during the life-course, while staying low at other times, depending more on the life situation than on age in participation studies.

Besides the problem of the tendency to homogenize, another problem with the statistics provided by participation studies is that they are most commonly based on participation within the formal educational system. Yet, we also know that the older the worker, the lower his or her level of formal education, and consequently, all the more alien and distant the world of formal education. Therefore, the low participation figures are not of much help in deepening our understanding as to what extent and how these people develop themselves. Nor, do they tell us what, when and whether they learn within other settings, self-directed, incidentally or through organized learning. Similarly with mapping (other) leisure time activities, estimates of the rates of participation in informal, nonformal and incidental learning in working life are less easy to make.

Regardless of the trend towards increasing participation in adult education, the accumulation of participation, the "iron law" (Nordhaug, 1994) of adult education, is a serious concern, as pointed out in Box 1. In other words, participa-

BOX 1. Participation of older workers in different countries: Three cases.

UNITED KINGDOM Reporting on the situation in adult participation in education and training in the UK, Uden (1996) points out to the following issues. The overlapping motives for engaging learning are vocational, academic and personal interest and development (mixed reasons). Gender differences exist in motives for participation. The relationship between age and performance (learning outcomes) is complex, varying according to sex, subject studied and qualifications on entry. The main influences can be summarized as follows:

The major factor affecting participation continues to be social class (majority from higher socio-economic groups and those with extended initial education). "Success in education does genuinely cascade down the generations." Employed are more likely to participate than unemployed; unemployment seems to act as a powerful deterrent to participation.

The missing groups are unskilled manual workers, people without qualifications, unemployed people, some groups of women (e.g. those in lower socio-economic groups, lone parents), some ethnic minority groups (e.g. refugees), older adults (aged 50+), people with special needs and disabilities, people with literacy and/or numeracy difficulties and ex-offenders (Uden, 1996, 17-18). Further, the rapidly growing numbers of part-time and temporary workers are largely excluded from employer-provided training. Most older people have little interest in gaining further qualifications or in narrowly vocational learning.

The headline findings on lifelong learning from the NIACE (National Institute of Adult Continuing Education) survey 1996 show that younger people participate more and their participation has increased more. In regard to social class the gap in participation is widening. The reasons for learning are more often work-related (48%) than related to personal development (36%). People who give up study do so for reasons other than learning reasons. The main reason, preventing non-participants from taking up learning, is lack of interest. Based on the findings of the survey Tuckett and Sargant (1996) conclude that "UK is increasingly two nations - one convinced of the value of learning, participating regularly and planning to do more - the other so far choosing not to join the learning society" (p. 219).

SWEDEN Traditionally the participation rates in education and training have also been very high in Sweden in all age groups. Ongoing training is still important after 55 years of age (Work, employment and growing older..., 1995). Abrahamsson (1996) describes the situation in Sweden as follows. Characteristics of the Swedish (also more generally of the Nordic countries) adult education to enhance lifelong learning are: educational leaves, options to study during working hours, outreach activities, a broad provision and open college policies for higher education (Abrahamsson, 1996). There are a number of groups that have been given a high priority in the policy of adult education, with a significant emphasis on competence development for needs in working life - particularly for the lower educated (e.g. komvux, see Andersson, Larsson, Olsson et al. 1995; Mäkitalo, Hult, Larsson et al. 1997). Older adults, however, do not form a priority group as such, whereas young people do. In principle, all employed persons in Sweden are entitled by law to educational leave, which an employer can only postpone but not reject. However, as a result of the economic recession in the beginning of the 1990s, the Swedish adult education system has been subject to cuts in financing. This has led to a downgrading of the system. Nevertheless, the training allowances for the unemployed have expanded, as Abrahamsson (1996) notes, with 'a speed almost impossible to control' (p. 176).

FINLAND The general characteristics of participation in adult education in Finland are: Women participate more than men. Yet, women focus on different subjects, such as the arts, health, welfare, whereas men choose courses in management and business as well as in technology and natural sciences. Also, women are motivated more than men by self-development, whereas for men a better salary is a more important motivator. According to occupational status managerial and professional employees participate the most (80% in 1990), administrative and clerical staff representing a somewhat lower proportion (70% in 1990). For manual workers the participation rates are the lowest (30% in 1990). Employer-provided (personnel) training is significantly more directed at men than women. The participation rate among those employed by the state is the highest (56%), and among those working private the lowest (36%). According to industrial branches the participants in personnel training are most often administrative and clerical staff, employees in industry and construction participating the least. (Ageing People in Working Life, 1996; Rinne & Kivinen, 1996).

Table 1 shows the participation rates in job-related adult education by age according to the national survey by Statistics Finland. By international standards, participation in adult education and training appears high in Finland, and here too it has been rapidly increasing during the last couple of decades. Despite an increase in participation among older people, the rate remains lower compared to younger people. What is interesting, however, is that after 1990, the only increase in participation has occurred among those aged 45 years and older (Table 1).

TABLE 1. Participation by age in job-related adult education in Finland (per cent)

Age	1980	1990	1995
18-29 years	34	48	45
30-44 years	37	57	54
45-54 years	31	48	53
55-64 years	15	25	31

Sources: Adult Education Survey 1995. Statistics Finland, 1996. (<http://www.stat.fi/sf/he/adultededu.html>).

tion in adult education has not widened beyond the traditional high participation groups (Uden, 1996). This suggests that although the average rates of participation in adult education and training have increased in Europe, persons belonging to the traditionally higher participant groups (the YUPs: younger, better educated, coming from higher social classes, urban residents, etc.) and those in the countries with traditionally higher participation rates (e.g. the Nordic countries) have on relative terms increased their participation rates well above those who belong to the traditionally non-participant groups (the ORLs: older, rural, labourer) and those in countries with less developed and comprehensive adult education systems (see also Table 5).

Therefore, it is not surprising that studies (from the European Union and the US) show that older workers are less likely than their younger colleagues to expect or desire training. Where training is available it is more likely provided for executive and managerial grades, professionals or for administrative support workers than for manual workers (Pearson, 1996 - see also Box 1 above). For example, in Sweden - the country nominated in Newsweek 1991 as the country with the best adult education in the world - the higher educated receive twice as much personnel training as the lower educated (Abrahamsson, 1996). The ratio is similar in Norway (Gulbrandsen, 1995). In Finland the situation is even more unbalanced: 20% of blue collar workers participate in personnel training against over 50% of white collar workers (Statistics Finland: Education 3:1995).

It has been pointed out (see Rinne & Kivinen, 1996) that the idea of a "second chance" through participation in adult education and training continues to be a "vital myth of equal opportunities" in adult education. The recent Committee on Lifelong Learning (1997) in Finland suggested a whole range of external changes, such as increasing options, financial support and counselling to increase participation in lifelong learning. However, from the point of view of the accumulation of participation, the conclusion to be made is that these changes, valuable as such, may improve the statistics further, but it is unlikely that they will motivate the non-participating groups to a significant degree. The challenges facing the development of the system of education and training are more profound, having to do with the basic philosophical presumptions under which educational and training systems operate; with the structural aspects of educational systems; with goals, methods and contents of education and training, and with cultural differences in the meaning of education and development.

4.2 Supply of and access to educational systems

Most of the studies in participation have been psychologically oriented, focusing on the individual characteristics of the participants. The context has by and large been neglected (e.g. Kuhn, 1990), although learning always takes place in some context (Tuomisto & Juhela, 1996). This section considers participation in learning in formal adult education.

From the point of view of formal systems, the provision of education for

older people is not necessarily a problem, because in principle they allow participation regardless of the age of the participants. In practice, however, it is not as straightforward. When enhancing lifelong learning in general, the question is not only of access to opportunities for learning and education, but also of motivation (Alexander, 1997). The latter is an individual factor which, however, is highly related to the barriers and incentives at other levels - social, cultural, geographical and economic - to access in education and training.

Although there is a general agreement among the representatives of social partners, political parties and governmental officials about the overall objectives of developing a system of continuing, lifelong education, this agreement vanishes when it comes to the formulation of specific policies and implementing them (Tuijnman, 1996; Tuomisto, 1996). Thus far learning and education among older people in general, and older workers in particular, has not been a priority for any of those social partners who are influential in the formulations of educational policies. The formal educational system was initially created for children and young people, and later extended to include (youngish) adults with an "adequate" or "proper" previous formal educational background. Given the continuously increasing variety of educational and training provision, there is a need for more discussion on whether to develop it in the spirit of lifelong learning and education from an age-integrated or from an age-segregated point of view. These approaches would perhaps best be viewed as complementary with regard to the heterogeneity of older workers. However, such a discussion should necessarily include the older learners themselves, rather than be developed by young educational planners. In the current situation, it is fair to put the question: Did anybody ever ask the older worker?

Access and barriers to participation have been widely discussed in the psychologically and sociologically oriented literature on adult education, but thus far cultural barriers have gained little attention. At best they are mentioned, but not discussed. However, when it comes to increasing the participation of older learners, intergenerational and sub-cultural differences in the meaning of learning and education are among the most challenging barriers to be overcome.

The coming of a learning society (White Paper, 1995) with an emphasis on recurrent training periods throughout the individual's lifetime is displacing the "stability paradigm" in society as the basis of formal adult education systems. On the individual level the stability paradigm has often meant a high concentration of job experiences. The experience concentration theory (Thijssen, 1992) suggests that a high concentration of (job) experiences decreases the willingness and ability to change. This implies that it is not adults' age but primarily their experience, which is responsible for the way in which they orient toward more learning. As a conclusion, since currently older workers have lived most of their lives under the stability paradigm, in terms of formal participation (as opposed to informal and incidental learning in everyday settings) a central challenge for them is now to face and cope with the changes in the culture of learning and education.

One aspect of culture relates to the language used in the adult education literature and among adult educators. The current discourse in adult education underlines principles and uses concepts related to learning, training and education with which older workers are unfamiliar and inexperienced. The terminology

includes concepts such as, for example, self-direction, reflection, discovery, creativity, personal responsibility and assessment of outcomes, which often are quite far from the practice of the school in the old days. Further, the goals and essence of the current ethos of job-related learning and education draw on approaches of the economic-political or technical-economic variety. These approaches are increasingly colouring the language used, causing problems not only among the older public but also more generally. Particularly in job-related training, new developmental views are increasingly brought into public and private job organizations by dynamic consultants, whose innovative views are expressed in business language, often hard to latch onto by representatives of other sectors. As a result, what a worker is left with is the requirement to be continuously able to adjust to an indeterminate process of changes. However, recent discussion has shown signs that efforts are being made to create a better match between training and the learning skills of older workers (Sterns et al., 1994).

What has been said above about cultural barriers to access to training has one practical consequence. It implies that in the fresh training of older workers both the quality and quantity of their previous experiences of participation in formal education and training should be adopted as the starting point. Studies suggest that older people can learn new technologies and become competent in their use of them. The training routinely provided by specialists is typically not designed from the point of view of the learning skills of older workers (O'Reilly & Caro, 1994). This should be acknowledged in developing new forms of training, too. This is important not only in the light of inter-generational differences, as described above, but also intra-generational differences, which relate more to the wide variety in the meanings of learning and training found among different sub-cultures within all generations and cultures.

Failure of educational and training systems, and particularly teachers within them, to adjust to that point of departure will most likely maintain a situation of failure to attract the attention of older workers and raise their level of participation - at least voluntary participation. Such a failure would also mean failing to function as a "change agent" (Carmen, 1997; Marsick & Watkins, 1990), currently regarded as one of the most important tasks for teachers and educational systems. The consequent risk of increasing the new polarization between the "knowledge-haves" and "knowledge have-nots" has been noticed by both the OECD (Alexander, 1997) and EC (White Paper, 1995). The future will also show whether the rapidly expanding market-based provision of options for adult learning (Jarvis, 1993) will ultimately turn out to be a further risk or a new opportunity for older workers. On one hand, the diversity of these new training markets seems like a risk in itself. On the other hand, their advantage in general over the formal public systems might be higher flexibility and more sensitivity towards the special needs and heterogeneous backgrounds of the potential consumers.

4.3 Context of job organization

Workplaces are increasingly being acknowledged as learning environments and as major generators of knowledge and new know-how. We are faced with a rather new situation in which working life is continuously developing (at least in the sense of changing) and firms have been left with little choice whether to follow it or not. To put it from another perspective, most employees constantly have to learn new things in their working lives, without it being orchestrated by anybody. The only choice that seems to be left for firms (employers and management) is between whether to try to have a say in the direction of this change and development or whether simply to follow it. Therefore, in addition to formal education, understanding the characteristics of the "shadow educational system" (Nordhaug, 1991) is central to our understanding of the range of options for and contexts of participation in learning available to older workers.

The variety of these options is increasing and includes both those for "embedded training" or "in-service training", as well as those for self-directed learning or self-education. Although empirical evidence is lacking at the moment, there are signs showing that these latter options might be more attractive and successful among older workers. As informal, non-formal and incidental learning are increasing in importance, it has been suggested (Poikela, 1996) that influencing and moulding the environments in which such learning takes place is at the same time a major means of influencing learning. Focusing on working environments as learning environments is new in regard to the situation of older workers. However, some examples still remain of European companies which invest in the development of the job competence of older workers (see Box 2).

When it comes to competence development and the training of older workers there appear to be a number of vicious circles in play in working life that hinder such efforts. As stated before, major obstacles to developing the vocational competence of older workers are more often related to chronological age and negative attitudes, rather than to an analysis of factual skills and knowledge and their usefulness to the company. The persisting focus on higher ages and the emphasis on the accompanying deficiencies have contributed to a situation in which employers as well as researchers still factually know little about the actual competence of older workers in general, and the strengths of the knowledge, skills and attitudes they have in particular. Sometimes knowing is a matter of wanting to know. That is, we lack a framework for assessing and comparing the value of the experience-based competence of older workers with the fresh training-based competence of younger workers in an unbiased and equal way. Nevertheless, one of the main reasons frequently referred to by employers as barriers to keeping older workers employed or hiring them is obsolescence and lack of skills and knowledge of the older workers (Walker, 1996). The actual chances for older workers themselves to "prove" their value and to become notified in a positive sense have not been too many.

The shortcomings and obsolescence of some domains of job competence is in many cases a reality among older workers. However, ignoring the point of view of their possible strengths as a starting point when developing their competence,

BOX 2. Examples of organizations investing in their older workers

The first examples are selected extracts from the European seminar "Work, employment and growing older in companies" (1995).

UNIGATE, UK (industrial food production group): The company has adopted a policy of equal opportunities (based on persuasion rather than instructions) within the general objective of profitability and growth of the company. Maturity of judgement is being confronted with the energy of the younger workers which will provoke creative solutions. The application of the principle of "economic profitability" to human resources has increasingly resulted in decisions favourable to older employees.

UDD-FIM, SWITZERLAND (SME manufacturing insulating materials for electronics). The company relies on the "experienced" profiles. It has improved the conditions for carrying out work and modified work organization and training. The means for the latter are: development of the role of supervisors to team leaders (technical assistant, trainer), grouping and forming of semi-independent teams receiving economic training, recognition of qualifications to validate know-how, and organizing training as refresher and technical improvement courses. The latter includes specific technical training actions targeted at older employees (45+).

VOLKSWAGEN, GERMANY: An "anticipatory organisation" is being developed to avoid any exclusion of workers by age. The company has adopted a principle according to which the effects of age have been taken into account by designing the work stations to be adapted to the effects of ageing. The quality of the work environment, training, communication and the hierarchical systems are regarded as the key factors in performance, whatever the age. The HR policy encourages the assignment of older employees to duties, taking advantage of the qualities of their professional maturity and older workers are integrated into team work.

All in all, the seminar (Work, employment and growing older ..., 1995) emphasized increasing the vocational training targeted to older workers, too, as the main means of maintaining high job performance. Changes in work were also suggested as well as cooperation between various actors and social partners.

FONTIJNE HOLLAND BV: (a medium sized organization designing and manufacturing specialized machinery). One third of the staff is aged over 40 years. The company has a long tradition of training staff and of emphasis on quality competition, due to high competition in the field in the international market. However, it was mainly the younger staff who benefited from the in-company training, and the external training was also accessible only to them. To respond to the complaints of "missing the training boat" by the older staff members, in particular in the manufacturing department, the company provided a refresher course for the over-40 age group in the department. The course was run internally by the company's own staff, in order to offer company-specific knowledge. The main effects of the course were social (feeling of togetherness, increased motivation, etc.) but knowledge of new technology also increased. The main problems with the course were in course design and inability to adjust the contents and methods of teaching on the level of the participants and their low-educational background and rusted learning skills. A conclusion drawn from the latter was that ongoing education and training is necessary, for the whole staff, regardless of age. (DeVroom, 1996.)

may involve risks that, in terms of outcomes, eventually may run contrary to what is intended. First, companies may lose valuable know-how as older workers exit the labour market at an increasing rate. This has already been found to be a problem in some highly specialized professions (Root & Zarrugh, 1987). Secondly, when it comes to older workers themselves, becoming motivated to develop oneself and one's competence out of a "not-good-for-much" position in a company may be difficult and result in preferring the options for labour exit, whenever available. Further, this line of thinking may be devastating to the adoption of ideas, such as, for example, "joy of lifelong learning" (Committee on Lifelong Learning, 1997) or increasing autonomy through participation in training and education (White Paper, 1995). Instead of "positive discrimination" in favour of those at a disadvantage (White Paper, 1995), enhancing learning and knowledge may turn into a form of external coercion for participation (Tuomisto, 1996), resulting again in meeting the needs of the haves rather than the have-nots.

The criticism of a strictly technological-industrial model of work, reflected in a "model of education that derives its prime legitimation from its direct individual

or economic pay-off" (Hart, 1996, 109), is valid particularly with regard to developing the job competence of older workers. As suggested earlier, an implicit assumption in discussions concerning the competence development of this group of workers is that they should participate in learning in order to be able better to adjust to the current and future world of work. One of the weak points when developing employment incentives for older workers (e.g. training programs) is their costs, often highly visible. While the benefits for these programs are measurable in terms of jobs created, ambiguous views exist about their cost-benefit rate (Crown, 1991). Further, the requirements for a more flexible work-force in general call for more training, which should focus more on core skills than specific, job-related knowledge (e.g. metacompetence, see Nordhaug, 1991) and should enhance the adoption of multi-skilling (Whitfield & Poole, 1997). However, there is a reluctance in companies to invest in the acquisition of general skills among their workers, due to the "free rider" problem (Whitfield & Poole, 1997). The latter refers to the risk of losing trained employees to non-training firms. Because such a broadening of skills is often most needed by older workers, investment in this line of training in companies sounds even less likely. For this reason, Whitfield and Poole (1997) suggest that public interventions are needed.

The homogenization of older workers is a common practice regardless of the fact that it is not possible to consider the development of human resources by focusing on the work force in general, or even the ageing work force in particular, since its context is a highly segregated, divided and stratified labour market. Further, the particular area or occupation and the size and structure of a job organization have a strong impact on both the knowledge and skills requirements ("re-skilling", "de-skilling") (Hart, 1996), as well as on the (learning) options available for an employee to develop these skills. In addition to the differences by industry, the various ways in which employment is organized in companies produce differences in competence. For example, following the adoption of high-performance production systems (Cappelli & Rogovsky, 1994), there has been an up-skilling of production jobs, with an increasing emphasis on behavioural and social skills, rather than on traditional vocational skills. Some big companies (see examples in Schneider, 1994), which have invested in the competence development of their older workers, show that in the area of social skills (e.g. in the service sector) older workers seem to have special strengths over younger workers. Further, the adoption of new work practices, such as employee empowerment and participation in decision-making, teamwork and job-rotation, to name a few, has been found to have a greater impact on skill needs among those who have lower levels of skills (Cappelli & Rogovsky, 1994). Although belonging to the same generation necessarily entails some common qualities (e.g. lower level of formal education), studies have pointed to increasing heterogeneity by age (O'Rand, 1996). Clearly the employees have other more important characteristics and qualities than chronological age to focus on when aiming at enhancing their competence development.

The fact that there are examples (such as those shown in Box 2) of companies that have been willing and able to break the vicious circles affecting the situation of older workers in working life, suggests that such a break may oftentimes be a matter of good will and a broader vision of competence on the part of manage-

ment and employers. However, refinements in national policies concerning both working life and training systems are clearly one precondition in assisting companies to improve the working environment to enhance learning and competence development among their older workers as well. It is important to try to prevent these vicious circles from blocking off the possibility of utilizing the learning and development potential of the work force as a whole. Further, and just as importantly, every worker should also during his or her working life have the continuous possibility to experience one of the most fundamental human pleasures: that which comes from learning and intellectual stimulation (described as "flow" experience by Csikszentmihalyi, 1997), as is commonly the case in other areas in life (e.g. family life or leisure). An example of national level initiatives actually taken in this direction is The National Age Program (NAP, 1997)⁸ by the Finnish government. It includes plans for campaigns among the general public to influence their attitudes toward and factual knowledge about ageing in working life.

4.4 Need for an integrated policy

One of the outcomes of the development of "adultification" and "vocationalism" in adult education is the shift in responsibility for policy from the sector of education to that of labour and working life. An example comes from Abrahamsson (1996), who presents the three-phase development of adult education in Sweden. He describes how the most recent (third) phase, characterized by a development of a more flexible organization of adult education with more open financing, also included the separation of employment training from the national educational administration and its transformation into the National Employment Training Board. As a result the financial support from the Ministry of Education has declined and that from the Ministry of Labour increased and as he claims, "adult education is expanding against the 'political wind'" (p. 172).

When it comes to formulations for the education and training of older adults, one dimension complicating the issue is the complex situation of older workers in the labour market. Besides education and labour policies, the retirement (social) policy sector is also involved. This interplay of intersecting powers and often conflicting interests have resulted in the lack of an integrated policy, which bears further on the issues of older workers' participation in learning activities. There is a wide dispersion of views concerning the ends and means for their competence development. The success of extending employment among older workers through part-time employment in Sweden is an example which shows the importance and effectiveness of sharing goals and means, not only among various policy sectors, but also among various social partners (trade-unions, employers, government) in the labour market (Delsen, 1996). However, the problem of developing an integrated policy and practice is not only the situation with regard

⁸ Kansallinen ikäohjelma 1998-2002

to older workers, but, as suggested above (Tuijnman, 1996; Tuomisto, 1996), a central and difficult challenge also more generally in developing a coherent educational system capable of fulfilling the principles of lifelong learning and education.

Provided that the older workers are ever younger in terms of chronological age, we are clearly faced with a necessity to develop an integrated policy both on national and company level in order to maintain and develop their competence. On the national level there are examples, such as Finland and the Netherlands, of the first initiatives made in this direction (Lahn, Tikkanen, Hejden & Thijssen, forthcoming). On the company level, the training programs and other developmental activities targeted at older workers are most successful when coordinated not only with other aspects of in-company personnel policies (Root & Zarrugh, 1987), but also with business policies. The advantages of such an integration are that inter-generational conflicts can be avoided and that the stability of these undertakings increased.

5 CONCLUSIONS AND IMPLICATIONS

In general, this study has shown that, firstly, improving learning and education among older workers represents a great challenge for society. This, however, needs to be understood relative to and as a reflection of the current situation in society. That is, from the point of view of lifelong learning and education, its application to older workers would not necessarily constitute an issue, were the circumstances and practices and policies adopted different. Secondly, with this particular topic one needs to be careful in drawing "general" conclusions. Older workers as a group are very heterogeneous, working life is highly stratified, and learning and education is a colourful field of its own. Yet, over-generalization and low sensitivity to this variety appears currently to be the rule.

Thirdly, what we have at hand here is highly a philosophical-political matter, heavily entwined with questions about values and rights in society - even more so than education in general (Brezinka, 1992). The issue of older workers as such, and even further that of their learning and education, relates our topic to a more general discussion concerning the situation of marginal groups in society. Given the size of the group in focus, such a statement displays irony as well as reflects the extreme ambiguity and strong attitudinal bias of the situation. Yet, to a large degree these very fundamental questions and challenges have much in common with the discussions concerning e.g. gender equality or racism.

Fourthly, maturity appears to have lost its value in working life. Given that maturity is enhanced by job experience, the typically stated qualification of a "few years" experience in the job vacant columns and the increasing bias towards the recruitment of young workers imply that maturity has less to contribute to judgement and decision-making in current working life. If the most influential and powerful people in the Western world in the past were old people through their wisdom, and if currently they are the middle-aged through their political power and hold on property, the obvious question is, will they in future be young adults through their hold on knowledge and on the labour market? If this is the inevitable, although perhaps not the most desirable, direction for development, Plato's ideal of lifelong education (see Adler, 1982) is being seriously challenged. In that ideal people under the age of 30 years were considered young, and young people, as Aristotle argued, cannot be taught ethical principles because they are

immature. "Lacking moral and political experience, being more or less under the influence of wayward passions, they cannot possibly understand moral and political principles, nor are they in a position to make sound judgements on moral questions" (Adler, 1982, 93). In the current terminology of lifespan developmental psychology Plato's view would be about the "crystallization" of moral judgement with age. We still have remnants of this line of thinking. Looking at the age of those workers holding top-management positions in working life and the elite in politics, shows that only people of a relatively high age (50+) qualify. However, is the typical qualification criterion of "a few years" of job experience, typically found in job vacancy announcements, a true reflection of developmental changes in judgement? Has the quality of maturity changed, so that now less of it will do? These examples reflect the ambiguous situation of older workers in the labour market but also an increasingly pluralist society. In working life older men are not longer expected to show wisdom; instead, now high judgement and wisdom are considered to be equally the property of young people. Although the definition of "moral" has certainly changed since the days of Plato, the question remains: What is the status of moral judgement in current working life? The broader question is: What is it that older workers can "give" and contribute to current working life?

The above speculation shows that the status of older workers is a matter of negotiation, and thus fundamentally context bound (national, cultural, organizational). The following conclusions on and implications for learning and education among older workers mainly refer to the situation in Finland, although some of them may have broader relevance. The conclusions concern lifelong learning and education, the competence (knowledge and skills) of older workers and working life (HRM and HRD). Attitudes are discussed in relation to the other themes. Finally, methodological issues are discussed.

Lifelong learning and education. The first conclusion concerning lifelong learning and education is that older workers appear to be the last ones to be included in the discourse. During the latter half of a person's working life most of his or her energy is spent at work and older workers have thus far relatively rarely volunteered to take on studies after working hours. It may not be of a total insignificance to lifelong learning that during the late phase of the career, in current working life, among their younger, more dynamic co-workers, older workers are on the shakiest grounds when it comes to their learning and education. In retirement there is more time and energy, but above all a rapidly evolving culture in favour of a learning-related way of life among one's peers. For example, the plans of many older workers include learning languages or buying a computer in retirement, when it will be possible to study at one's own pace and without feelings of embarrassment under the eyes of younger people. That reflects an attitude characterizable as positive curiosity, rather than fear of technology and other innovations. If there are signs of fear among older workers in working life, it may well be more towards younger workers and management than technology. The last decade has shown that older workers can and do learn to use computers and new technology when, in fact, they have no choice. For example in a big Finnish industrial company (see Lahn, Tikkanen, Hejden et al., forthcoming), neither the attitudes of older workers, nor their abilities at mastering new technol-

ogy were regarded as major problems. These problems were rather seen in metacompetence-related skills, such as learning foreign languages, regarded as a necessity in a rapidly internationalizing company.

A further conclusion, somewhat absurdly, is that in the domain of job-related training the learning and education of older workers is currently very little discussed. While one explanation may be the ultimately negative views held about the productivity of older workers in general, the situation may also reflect the still vague notion or "non-concept" of older workers as learners among adult educators in vocational training. The demands for more training and learning for older adults and workers seem consistently to suggest that it is necessary for them to gain *new* knowledge and skills, rather than to learn to utilize better their existing experiential knowledge and understanding. This reflects the fact that in practice job-related training and learning have predominantly adopted an instrumental and adaptive, reactive and preventive, as opposed to expansive (Engeström, 1994) or proactive (Handy, 1996) approach, with goals outside the learning activity or the learner him- or herself (Tennant & Pogson, 1995). Thus, practice stands in contradiction with the main currents in theorizing in adult learning (e.g. transformative or emancipatory learning or science) (Hart, 1996; Leirman, 1987; Mezirow, 1996), where the approach is more learner-centred. The approaches in practice view learning "for" development, for the job or the company, while the main currents in theorizing view it "as" development (Carmen, 1996), as an individual and as an employee. The implication for job-related learning and education for older workers is that both of these approaches should be present, rather than viewing one as more valuable than the other. This implication is also supported by recent views on competence requirements, to be discussed later.

Further, the "standard" adult education approach and methods are unlikely to prove the most appropriate in the case of older workers for at least two related reasons. They have been planned from the point of view of younger learners, and, as a rule, from the point of view of adults with an appropriate basic educational background. In this situation enhancing lifelong learning and development among older workers requires a double effort, both from adult educators and from older learners. This situation as such may discourage participation, as well as the expected outcomes (higher labour market value, finding employment or more security in one's job etc.). In conclusion, the current practice and principles (e.g. in provision and methods) of job-related adult education do not encourage and support the participation of older workers.

Finally, when it comes to improving the situation of older workers within and through lifelong learning and education, the greatest challenges now and in the future face adult educators in vocational training (see also White Paper, 1995). These challenges concern both their attitudes (Cahill & Salomone, 1987; Collin & Watts, 1996) and knowledge and skills in terms of appropriate learning methods. An obvious implication is that there is an urgent need to develop methods and approaches in adult learning and education that are sensitive to low educational background (rather than age). Further, when it comes to middle-aged and older workers, development of broad-based in-service training and other employment-related training may be most appropriate (Whitfield & Poole, 1997) and easiest of access for older workers.

Competence. Who is a competent worker? When is a worker's performance "high" or high enough and at what point does it cease to be so? These are core questions, but currently there are no unanimous answers available. When it comes to particular domains of competence, such as task-specific skills (e.g. those related to technology), competence or the lack of it, is easier to define. However, when it comes to broader and higher-level skills and knowledge, so called metacompetence, definitions get more cumbersome and complicated. Yet, it is the latter that the new High Performance Work Systems are increasingly putting forward. Appetites for creativity (Mumford, Whetzel, Reiter-Palmon, 1997) and innovation (Arad, Hanson, Schneider, 1997) in working life are currently more pronounced and relative to a wider target group than perhaps ever before. On one hand we are short of tools for the analysis and "mapping" of workers' potential for these qualities. On the other hand, whether older workers represent unused potential in working life is still a hypothesis at this point, but what is clear is that the a lot of intellectual and creative potential of workers in general is under-used (Csikszentmihalyi, 1997) in many routine and repetitive jobs in current working life. Moreover, we have evidence showing that crystallized intelligence develops with age as well as that experience is an advantage for job performance. Consequently, there is no conclusive evidence to support the arguments concerning the lower overall competence of older workers compared to their younger counterparts.

Further, it appears that working life has not fully acknowledged the value and, thus, not been able to take advantage of the potential competence which lies in the diversity of the work force. As well as possibly being a result of the tendency towards the standardization of qualification systems as a rule, it may be due to the narrow views held on job competence and "productive workers". Yet, in some firms team work has explicitly adopted the diversity of competence as a central starting point (Lahn, Tikkanen, Hejden et al., forthcoming). Given that older workers' competence may be different from that of younger ones, it is primarily because of differences in experience, not in age. This suggests that by increasing experience, competence, and subsequently the nature and level of individual productivity, may become increasingly difficult to define, in the absence of formal qualifications. A further implication for developing tools for competence analysis is to reach toward experience-sensitive criteria for professional competence.

Working life. If the domain of job-related training was viewed as at least central to learning and education among older workers, in working life employers and management are the central players and their attitudes are thus the most crucial. In general employers and management appear too narrow-minded in managing an ageing work force. There has been little experiment in the area and much straightforward application of the method of exclusion (early exit). This clearly is a shortcoming, since the heterogeneity of the work-force is expected to increase further, not only because of the graying of the workforce but also because of the rapid changes taking place both in jobs and job contracts. It is expected, therefore, that the pressures for developing management skills will increase, with requirements for greater ingenuity and more innovation to increase productivity

(Liebig, 1988).

The conclusion then is that at least as essential as it is to focus on older workers themselves and their competence, when aiming to improve their situation in working life, is it to focus on employers and management. An implication for practice is that actions need to be taken to increase understanding among employers and management. In addition to ageing, knowledge is needed about the relationship between ageing and work as well as about management of an ageing work force. These actions should also raise critical awareness among employers and management, with the aim of revealing the origins of their stereotypical attitudes (Sterns & Dovernspike, 1988) toward older workers and ageing.

Of all the parties in the labour market, employers and management appear to value least the competence of older workers as productive. In spite of that they have been less attentive to the developmental needs of older workers than to those of younger ones (Hejden & Thijssen, in Lahn et al., forthcoming). While the former may be a "natural" consequence of the latter, from the point of view of enhancing lifelong learning, the situation is, however, unfortunate for older workers. Given that working environments are increasingly central learning environments, it follows that the role of supervisors and management is very important in supporting the full realization of the idea of lifelong learning and development.

The approach adopted to older workers in society and in companies has a direct influence on their learning and education. On one hand, if we predominantly view older workers primarily as "lacking" (skills, knowledge, "right" attitudes, etc.), with little enabling them to contribute to current and future working life, then improvement of the situation, for example through training, will be an immense task. On the other hand, if we adopt a point of departure, which, firstly, acknowledges the potential for specific strengths in the competence of older workers and, secondly, views them as capable of a valuable contribution to working life and to younger workers, improving their current situation through learning and education appears a totally different issue. In this current of thinking older workers could be viewed as contributing as "teachers" to less experienced workers. While viewing older workers primarily as lacking has been the predominant approach, there is clearly a need for both change in attitudes as well as more research to study job-related competence in general and the productive value of experience-based competence and its development among older workers. Age-discriminative policies have resulted in a countermovement, calling for an "ageless" society (Lawson, 1992) and age-neutral policies and practice in companies (Schränk & Waring, 1989; Sterns, Barrett, Czaja & Barr, 1994). Examples of some big companies (see Schneider, 1994) show that they are prepared to take care of their older workers and develop incentives and programs to encourage participation in their labour-force, when it is in their best interests to do so (Crown, 1991). In the current situation, however, this does not seem to be the case. Therefore, public intervention and support for small and medium-sized companies in particular is needed to remove the economic and structural barriers to learning and education for older workers (Whitfield & Poole, 1997).

It was brought up in the introduction that the emerging discussion on the learning and education of older workers is carrying signs of being imposed on them, thereby underlining their marginal position in society. A specific current of

Finnish working life has been that older workers are very willing to retire and stop working altogether (e.g. Gould, Takala & Lundqvist, 1991; Lilja 1990), regardless of the implementation of various developmental programmes in working life and early occupational rehabilitation. Thus in Finnish society the situation of older workers is as much characterized by workers' willingness to go as by employers pushing them out. However, the situation has recently shown signs of change, with companies increasingly pushing older workers out into the "pension pipe" (Tikkanen, forthcoming), driven among other things by juvenilization projects. The latter are not only preferred because they lower employment costs, but also because the average age of a company's staff has come to be taken as an indicator of its dynamism and "shock ability" in highly competitive markets (Lahn et al., forthcoming). From the point of view of older workers, then, labour exit is increasingly becoming an involuntary solution and the "limbo period" of unemployment between labour exclusion and retirement is becoming increasingly common and longer. This study has also pointed out other issues, such as the increasing focus on job competence in working life, that hold adverse prospects for the situation of older workers. In the Finnish situation the question could still be: Is the enhancement of learning and education among older workers only the most recent "stick" taken up in the face of growing pension costs and thus against their will and best interests? However, it appears that increasing learning options and hence possibilities for the competence development for older workers is increasingly being viewed as a new opportunity for them. In fact, in the face of increasingly young older workers, for many it represents the only chance of remaining in the labour market. In terms of the outcomes of the trend towards increasing learning and education, crucial issues concern both the training provided (approach, contents, methods, experience sensibility, etc.) and its factual consequences in terms of employability and labour market value.

Methodological commentary. Methodological issues have also been discussed in the articles. Here I shall further discuss four broad issues that this study has raised: multidisciplinary, integrated theorizing, statistical methods and the relationship between research and practice.

The study adopted a broad, multidisciplinary framework for exploring the issue of learning and education among older workers. It showed that an interdisciplinary approach is valuable and necessary when aiming to understand a highly complex issue. The broad framework has been more technical or structural in nature, rather than modelling and mediating a coherent understanding of the internal relationships between the various elements. Primarily it stands as an effort to build a synthesis from (at least) three currents of discussions in various disciplines, concerning our current understanding about learning and education among older workers. This attempt can be regarded as the chief value of the study in contributing to the existing knowledge base.

The work has shown that adopting multidisciplinary as a starting point in a study is extremely challenging. The challenge is brought about by both the complex substance of the work and the practical complexities that, as this study has shown, may follow from such an approach. Because a multidisciplinary approach is increasingly called for in the social sciences, although studies that

have truly adopted it are rare, some points of view from the experience gained in this study are worth bringing up. This study, in fact, has raised some questions: What does multidisciplinary eventually mean? What does it mean in a study conducted by a single researcher? and, subsequently, how far is it possible to adopt and apply such an approach? Given that there is a call for "integrated", more "coherent" and "holistic" approaches not only in gerontology but also in the social sciences, more discussion is needed about the "essence" of a multi-, inter- or transdisciplinary approach and its practical consequences.

Efforts for to develop an integrated understanding most typically take place within one discipline rather than several, and deal with a fragmented state of research and middle-range theories (Merton, 1968) within that particular discipline. Nevertheless, the impetus for this integration of views is a dissatisfaction with the increasingly narrow theorizing and small amount of bridging existing between disciplines in the social sciences. As Gustavsen (1996) has argued, one of the great paradoxes of our time is that at the same time as theory has failed in what it was meant to provide us, telling The Truth, there have never before been as many theories influencing our everyday lives as there are today.

In this study I have referred to broad lines of theorizing within the three fields of studies discussed. Within the broad approach adopted, that was about the deepest it was possible to get in conceptual-theoretical discussion. This study (concluding commentary and the two review Articles II and IV) has built the argumentation and carried it on through the work in reviewing and discussing the themes and findings of existing studies and other literature within the three domains covered. An alternative approach would have been to build the argumentation more clearly on the analysis of various models and (middle-range) theories (currents of theorizing) within the three research domains. The latter, however, would have resulted in a theoretical study. At this "fresh" state of research on the issue at hand, the approach finally adopted was preferred as more useful for further studies. With the broad view now outlined as a starting point, future research on learning and education among older workers should aim at further developing the conceptualization and theorizing, and in a manner that would also bear on practice.

The above proposal raises, of course, a question: What do we understand by theory? While pondering on that would take us too far from our topic, I shall just mention some views developed during the course of this work with regard to understanding multidisciplinary. With regard to any particular question and topic in hand in a study, multidisciplinary understanding represents an all different line of understanding than that provided by single disciplines. Therefore, as a basis for theory building, it does not necessarily get much help from simply looking back at the various disciplinary roots and putting together scraps of knowledge drawn from them. Nor should it be understood as such. As tempting as it would be to interpret multidisciplinary (e.g. educational or industrial gerontology) as reaching back to the various disciplinary roots (e.g. psychology, sociology) to grasp a more coherent understanding, which "used to be" prior to disciplinary fragmentation, it is impossible. For example, from such a point of view in the present study, the whole problem (learning and education of older workers) would have evaporated. Multidisciplinary is best understood as a "non-disci-

pline", as a coherent, integrated or holistic way forward in research, one which tries to avoid the adverse consequences of fragmentation (e.g. the separation of a phenomenon and its context). While one of the shortcomings of this study may well have been applying multidisciplinary too much from the above-described simplifying point of view, a question for further research remains: How to conduct a multidisciplinary study, which will result in a qualitatively different understanding and knowledge from what we already have, by merging existing knowledge with the "unknown"?

Describing the situation within ageing studies, Birren and Birren (1990; quoted in Schroots, 1995) have listed three reasons for the lack of integrated theorizing. First, the exponential growth of research and publications has left no time for profoundly analysing, synthesizing and integrating concepts and findings. Second, professional services are mainly organized in an age-segregated manner, which explains the low interest in the integration of knowledge across age levels. Third, ageing is inherently a complex matter, making the construction of an integrated theory a complex matter. The authors argue that drowning in data is pushing researchers to develop more integrated theorizing.

At this point we are definitely not drowning in data on the learning and education of older workers, but this study has shown that the situation is similar in adult learning and education and, and not lagging much behind in working life. However, the two empirical studies (Articles I and III) did provoke a major question concerning methods in data analysis, relevant also in terms of more coherent theorizing: Have statistical methods reached their limits relative to the recent development of theorizing in the social sciences? As was argued, the question concerns in many cases the particular statistical methods used, but in a lot of cases also the way they have been used. Although it is not a new issue that the basic assumptions in various statistical methods often do not match the views about "real" life (e.g. that explanatory factors may not interact), I would argue that the issue has (and should) become more crucial due to the request for more integration and coherence in theorizing in social sciences.

Although the statistical methods typically used do in principle include more advanced options (such as complex joint effects), the problem is, as pointed out in the article, that those options are rarely used in educational studies (although somewhat more so in studies on ageing). As I see it, the reason is simply that researchers are not familiar with highly complex advanced multivariate statistics. For, were they so but did not use them, the reason would be ignorance. As ignorance is not a very good reason, this problem has to do with the command of methodological knowledge (statistics in particular) required if it is to be taught to doctoral students, the researchers-to-become. Typically knowledge of advanced statistics also requires a high-level mathematical understanding. Thus, it is fair to ask, where we should set the lower competence limits on the level of knowledge about applied statistics in education (but also more generally in the social sciences)? The question is central, because the answer given to it has far-reaching consequences, not only what doctoral students have to suffer, but on the development of theorizing and, subsequently, on understanding within educational science. The magnitude of this issue requires serious discussion.

Finally, it is important to consolidate the link between research and practice

and to enhance the ways in which research knowledge becomes practical knowledge (Huberman, 1990), in order to challenge the traditional views of the superiority of the theoretical knowledge of academics against more practical and "democratic" (Toulmin, 1996) views of knowledge (Blackler, 1995; Gibbons et al., 1994) held among other groups of knowledge users. In working life there is an urgent need to develop productive and proactive solutions to the challenge of an ageing work force. Given the scarcity of research, and even greater scarcity of "theories" on the learning and education of older workers, it sounds somewhat unrealistic in a rapidly changing situation in working life to expect researchers first to gain an understanding and keys to solution of the situation and only later have that knowledge at the disposal of employers and policy makers. In this case, the "scientificness" of such knowledge does not add much to its value. Of all the research approaches action research and developmental work research, have perhaps been the most successful of the attempts made so far to truly establish the link between research and practice (see e.g. Engeström, 1994; Gustavsen, 1996; Toulmin, 1996), to have principles and their applications present at the same time. Small-scale developmental programmes (see e.g. Kauppinen & Lahtonen, 1993a; 1993b; McNiff, 1988), in the context of the firm, with options for extending programmes outside that context to training institutions when appropriate, may also be one of the best ways to include older workers in developing working life and themselves. The advances of such an approach relate further to creating a less offensive learning environment, respond to the heterogeneity of older workers in various jobs, and to enable older workers "voices" also to be continuously present.

The conversation about the value of practical vs. theoretical knowledge, which should avoid either-or positioning, is obviously as old as the institution of science. That, however, does not mean that any conclusive clarity would have been achieved: the question is more of a matter of a way of looking at the world and life. I shall finish this study with a moral, if one wishes to see it, by citing Leirman (1987), a professor in the field of adult education, who wrote ten years ago:

"But from within, (adult) educationalists have to ask themselves whether they have made valid contributions towards the construction and implementation of educative programs in the existential problem areas of our time. My personal impression [...] is that we are not yet adequately meeting the challenges of our times: there is, on one hand, too much engagement based on slogans and superficial knowledge, and on the other hand, too much theorizing without solid roots in practice." (Leirman, 1987, 16-17)



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YHTEENVETO

Johdanto ja tutkimuksen tarkoitus

Tutkimuksessa tarkasteltiin sitä haastetta, minkä ikääntyvien työntekijöiden oppiminen ja koulutus muodostaa työhön liittyvän osaamisen kehittämiseksi, työorganisaatioille ja yksilöille. Tarkastelun taustalla oli keskustelu elinikäisestä oppimisesta ja koulutuksesta, missä ikääntyvä työväestö on näihin päiviin saakka ollut lähes näkymätön. Työ perustui neljään artikkeliin, jotka ovat tämän raportin liitteinä.

Yksi työn lähtökohta oli aikuiskoulutuksen ja työelämän välillä vallitseva paradoksaalinen tilanne: samalla kun kokemuseräisen tiedon merkitys aikuisten oppimisessa ja aikuiskoulutuksessa on korostunut, on kaikkein kokeneimman työntekijäjoukon arvostus työelämässä laskenut. Tästä syystä tutkimuksessa ovat keskeisiä asenteet ja niiden merkitys ikääntyvän työväestön oppimiselle ja koulutukselle. Yhteiskunnan modernistuessa vanhemmasta väestöstä tuli marginaalista työvoimaa ja heihin alettiin suhtautua sen mukaisesti, tyypillisesti holhoavasti. Holhoavuus leimaa erityisesti suhtautumistamme ikääntyvää työväestöä kohtaan, sillä vaikutukset tulevat sekä työelämässämme vallitsevasta johtamiskulttuurista (Wray, 1996) että suhtautumisestamme vanhuuteen ja vanhuksiin. Ikääntyvän työväestön⁹ oppimisesta ja koulutuksesta viriämässä oleva keskustelu viestii muutoksista näissä asenteissa. Koska kuitenkin on niin, että tätä keskustelua ovat olleet herättämässä muut kuin ikääntyvät työntekijät itse, olen tulkinut, että tähän saakka keskustelu on onnistunut vain selkeämmin osoittamaan heidän marginaalisen asemansa työelämässä ja yhteiskunnassa. Tästä näkökulmasta tutkimuksessa tarkastellaan myös sitä kontekstia ja niitä olosuhteita, joissa ikääntyvän työväestön ääni on jäänyt kuulumatta, erityisesti potentiaalisina elinikäisinä oppijoina. Konteksti on ollut laaja. Pohjaa sille on haettu työelämän ja työmarkkinoiden sekä aikuiskoulutuksen ja ikääntymisen tutkimuksista, koska nimenomaisesti ikääntyvän työväestön oppimiseen ja

⁹Työväestöllä viitataan raportissa työvoimaan yleisesti.

koulutukseen kohdistuva tutkimus on toistaiseksi hyvin vähäistä.

Työssä omaksuttiin käytännöllinen (Straka, 1990b) tai toiminnallinen (Root & Zarrugh, 1987) määritelmä ikääntyvälle työntekijälle (older worker). Sen mukaan ikääntyvä työväestö käsittää 40-vuotiaat ja sitä vanhemmat työntekijät. Alaikärajan valinnan kriteerinä oli ikäyrjännän alkamisen ikäraja nykyisessä työelämässä. Työntekijän määrittely-yhteydestä (esim. ammattialasta, -asemasta, urakehityksen vaiheesta) ja yhteiskunnallis-historiallisesta ajankohdasta. Esimerkiksi tämän tutkimuksen kuluessa ikääntyvistä työntekijöistä tuli kaiken aikaa ”nuorempia”, koska varhaiseläkelakien säätämisen seurauksena käsityksemme siitä, kuka on ”liian vanha” työntekijä yleisesti ottaen nuoreni (Walker, 1996). Itse asiassa keskustelun kääntyminen jo niinkin nuoriin kuin nelikymppiin, kyseenalaistaa ikäkeskustelun olennaisuuden ja siirtää katseen pikemminkin työelämän johtamistapoihin, organisointiin sekä rakenteisiin.

Tutkimus kohdistui laajasti työhön liittyvään oppimiseen ja koulutukseen. Muodollisen koulutuksen ohella työhön liittyvää oppimista katsottiin tapahtuvan informaalisissa ja nonformaalisissa kontekstissa, myös jokapäiväisessä työssä. Jälkimmäinen merkitsi myös ns. hiljaisen tiedon (Bereiter & Scardamalia, 1993; Gibbons, ym. 1994) ja metakompetenssin (Nordhaug, 1991) korostamista olennaisena osana ammatillista osaamista. Kriteeri, jolla oppiminen ja koulutus määritettiin työhön liittyväksi, oli hankitun osaamisen käyttö ja merkitys työntekijän tiedoille ja taidoille sekä työsuorituksille - ei siis niinkään se, mistä oppi ja koulutus oli hankittu. Selkeää rajanvetoa ammatillisen ja muun osaamisen välille ei nähty tarpeelliseksi eikä edes mahdolliseksi nykyisenkaltaisessa tilanteessa, jossa työhön liittyvän ja muun toiminnan välinen raja (Chaney, 1996) on kaiken aikaa hämärtyvässä.

Artikkeleiden yhteenveto

Ensimmäisessä artikkelissa, *The age-participation relationship revised. Focus on older workers*, arvioin tilastollisten menetelmien käyttöä osallistumistutkimuksissa ja niiden käytön seurauksia johtopäätöksille ja teorianmuodostukselle. Keskeinen lähtökohta oli se, että osallistumistutkimuksissa tilastollisten menetelmien käyttö ei ole johdonmukainen vallitsevan teoretisoinnin kanssa, jossa pyritään koherenssiin ja kokonaisvaltaisempaan suuntaan. Kuten psykologiassa (ks. Valsiner & Lawrence, 1996) myös aikuiskasvatuksessa menetelmät hallitsevat empiiristä tutkimusta pikemminkin kuin mielenkiinnon kohteena olevat teoreettiset kysymykset. Artikkelissa tarkasteltiin empiirisen tutkimuksen avulla uudelleen sitä yleistä, tilastollisesti suuntautuneissa tutkimuksissa tehtyä havaintoa, jonka mukaan ikääntymisen myötä osallistuminen aikuiskoulutukseen vähenee. Kun osallistumisen ja iän välisen yhteyden tarkasteluun sovellettiin paremmin teorioiden kanssa yhteensopivaa tilastollista lähestymistapaa, tämä yhteys osoittautui aiemmin havaittua moniulotteisemmaksi ja monimutkaisemmaksi ja pohjakoulutus sekä sukupuoli ikää merkittävämmäksi tekijöiksi. Ensimmäinen

päätelmä oli, että laadullisten menetelmien ohella tilastollisia menetelmiä voidaan ja niitä tulisi käyttää siten, että ne sopisivat paremmin yhteen tutkimuksissa omaksuttujen teoreettisten oletusten kanssa. Tällöin ongelmaksi muodostuisi kuitenkin se, että tutkimuksissa vaadittaisiin vallitsevaa käytäntöä huomattavasti sofistikoituneiden tilastomenetelmien tuntemusta ja sovellusta. Toinen päätelmä oli, että ikäryhmäkohtaisen homogenisoinnin sijasta tulisi kiinnittää enemmän huomiota kaikkien ikäryhmien sisäiseen huomattavaan vaihteluun aikuiskoulutukseen osallistumisessa.

Artikkeli nostatti esille myös laajemman kysymyksen, ovatko tilastolliset menetelmät tulleet tiensä päähän suhteessa teoretisointiin yhteiskunta- ja käyttäytymistieteissä? Tilastomenetelmien lähtökohtaoluetusten yhteensopimattomuus "elävän elämän" kanssa on mielestäni tullut aiempaa keskeisemmäksi ongelmaksi, kun teoretisointi on kehitymässä kokonaisvaltaisempaan ja integroidumpaan suuntaan. Kysymys ei kuitenkaan viittaa tilastomenetelmiin sinänsä, vaan niihin vaatimuksiin, joita tutkijoille asetetaan näiden menetelmien hallitsemiseksi. Jo jonkin aikaa on ainakin aikuiskasvatuksen tutkijakoulutuksessa eletty maailmassa, jossa tilastollisen osaamisen hallintavaatimukseen ei ole tullut juurikaan uutta. Näin siitäkin huolimatta, että sekä tilastomenetelmät että teoreettinen ajattelu kehittyvät ja muuttuvat kaiken aikaa. Kysymys on tärkeä ja sitä tulisi tiedeyhteisöissä pohtia.

Toisessa artikkelissa, *Ageing work force and life-long learning: an organizational perspective*, tarkastelin ikääntyvän työvoiman asettamia haasteita henkilöstöhallinnolle ja henkilöstön kehittämiseksi. Lähtökohtana oli ajatus siitä, että työorganisaatiot muodostavat yhden keskeisen oppimisympäristön ihmisten elämänsä aikana. Henkilöstöhallinnon erilaisten kehitysvaiheiden hahmottamisen kautta työssä esitettiin, että ikääntyvän työväestön osakseen saama arvostus työelämässä mukailee kokemusperäiselle tiedolle annettua arvostusta. Katsauksen perusteella yksi keskeinen henkilöstöhallinnon haaste on henkilöstön, sen osaamisen ja näiden molempien kehittämisen mieltäminen voimavaraksi eikä pelkästään kustannustekijäksi. Toinen haaste on, miten vakuuttaa työnantajat ja työn johto siitä, että organisaation kehittyminen ja tuloksen tekeminen on mahdollista ja useimmiten ennen pitkää kannattavampaa, jos panostetaan organisaatiossa jo olevien työntekijöiden osaamisen kehittämiseen sen sijaan, että vaihdetaan henkilöstöä kaiken aikaa nuorempaan ja "kehittyneempään". Kolmas haaste, joka liittyy yhä nuorempaan ikääntyvän työväestön tilanteen parantamiseen nykyisessä työelämässä, on nykyistä kokonaisvaltaisemman johtamistyylin kehittäminen organisaatioissa.

Kolmas artikkeli, *Interest and participation in adult education among ageing workers*, oli empiirinen tutkimus, jossa selvitettiin aikuiskoulutukseen osallistumista koulutusasenteiden ja sukupuolen kautta. Lähtökohtana oli stereotyyppinen oletus, jonka mukaan iän myötä kiinnostus koulutusta kohtaan vähenee. Oletus ei saanut tukea tuloksista, sillä kiinnostus aikuiskoulutusta kohtaan vaihteli pohjakoulutuksen mukaan, iästä riippumatta. Pyrittäessä laajentamaan aikuiskoulutukseen osallistujien koulutus pohjaa, eikä pelkästään osallistujien määrää, tulisikin ensisijaisesti keskittyä niihin haasteisiin, joita vähäinen muodollinen pohjakoulutus asettaa osaamisen ja koulutuksen kehittämiseksi. Naisten ja miesten koulutukseen osallistumisen havaittiin olevan erilaista, minkä

vuoksi eri sukupuolten koulutukseen osallistumista tulisi tarkastella erillään.

Neljännessä artikkelissa, *Perspectives on the professional competence of older workers*, tarkasteltiin sitä jännitettä, mikä vallitsee pitkälti vain kokemusten kautta oppinsa saaneen työväestön matalan työmarkkina-arvon ja kokemusperäiselle osaamiselle ja oppimiselle aikuiskasvatuksessa annetun korkean arvostuksen välillä. Artikkelin perustui kahteen oletukseen. Ensimmäisen mukaan muuttuvat näkemykset tiedosta (knowledge) ja sen luonteesta heijastuvat näkemyksiin työelämässä vaaditusta osaamisesta. Eri tieteissä sekä teollisuudessa ja teknologian alalla tiedon mieltäminen on laajentunut siten, että universaalien ja teoreettis-abstraktin tiedon ohella arvostetaan myös käytännöllisempää ja tehtävä- ja tilannesidonnaisempaa, korkeampaa sovellusarvoa omaavaa tietoa ja osaamista. Siten kysymys tiedosta ja sen luonteesta on relevantti myös ikääntyvän työväestön ammatillisen osaamisen kannalta. Toinen oletus olikin, että työelämässä vallitsevat käytänteet ovat ristiriidassa näiden uusien näkemysten kanssa. Erilaisen tietoa ja osaamista käsittelevien lähestymistapojen tarkasteleminen osoitti, että yhä enemmän ammatillista osaamista luonnehtii laaja, moniulotteinen ja muutos- ja kehitysorientoitunut ajattelutapa. Pätevyyttä työelämässä ei siten enää luonnehdita pelkästään yksilön ominaisuuksien tai työtehtävien avulla. Siten teoriassa - vaikkei vielä kovinkaan paljon käytännössä - laajapohjaisen osaamisen ja metakompetenssin (esim. luovuus, ongelmanratkaisukyky, sosiaaliset taidot) merkityksen korostuminen työelämässä luo uusia mahdollisuuksia ikääntyvien työntekijöiden kokemusperäisen osaamisen nykyistä laajemmalle arvostukselle ja hyödyntämiselle.

Yleiset johtopäätökset

Ikääntyvän työväestön oppiminen ja koulutus on mittava haaste nykyiselle työelämälle ja yhteiskunnalle. Se on vahvasti filosofis-poliittinen kysymys, johon olennaisesti liittyvät arvot ja oikeudet yhteiskunnassa. Siten ikääntyvän työväestön oppimista ja koulutusta voidaan verrata marginaalisten ryhmien (esim. naiset, vammaiset, värilliset) asemaan työelämässä ja yhteiskunnassa laajemminkin. Tutkimuksen perusteella voidaan todeta, että kypsyys näyttää menettäneen merkityksensä nykyisessä työelämässä. Suhtautumisen ristiriitaisuus kokemuksen mukanaan tuomaan kypsyuteen - ja sitä kautta ikääntyvään työväestöön - näkyy kuitenkin siinä, että huippujohtajien paikalle niin yritysmaailmassa kuin politiikassakin kelpuutetaan edelleen vain kohtuullisen kypsään ikään ehtineitä. Keskeinen kysymys ikääntyvän työväestön oppimisesta ja koulutuksesta puhuttaessa onkin, mitä annettavaa tällä huomattavalla työvoiman osalla on ja voisi olla nykyisessä työelämässä?

Nimestään huolimatta elinikäinen oppiminen ja koulutus ei vielä ole käytännössä toteutunut kaikissa elämänvaiheissa ja ikäryhmissä. Lapsi- ja nuorisoasteen jälkeistä koulutusta voidaan toistaiseksi pitää lähinnä synonyymina ammatilliselle aikuiskoulutukselle. Aikuiskoulutuksen valtavirrassa ikääntyvä työväestö onkin viimeisimpiä ellei viimeisin ryhmä, jota ollaan sisällyttämässä keskusteluun

elinikäisestä oppimisesta ja koulutuksesta, sillä myös eläkeikäisten opiskelu on viimeisinä vuosina kaiken aikaa lisääntynyt. Vaikka ikääntyvän työväestön eli yli nelikymmenvuotiaiden osuus kokonaistyövoimasta on huomattavan suuri ja kasvaa kaiken aikaa ja vaikka suurin osa aikuisten oppimisesta ja koulutuksesta tapahtuu työelämässä, ikääntyvän työväestön oppimisesta ja koulutuksesta on tähän saakka puhuttu kovin vähän, saati sitten että paljonkaan olisi tehty. Lisäksi olemassaolevissa viittauksissa korostuu kautta linjan mukauttava ja instrumentaalinen ote, jonka mukaisesti ikääntyvien tulisi ennen kaikkea oppia *uutta*, jotta *he* sopeutuisivat paremmin nykyiseen työelämään. Lähes olematonta, vaikkakin välttämätöntä, on keskustelu siitä, miten muut, "nuoremmat", työntekijät voisivat tunnistaa ja hyödyntää paremmin ikääntyvien kokemukseen perustuvaa ammatillista osaamista ja työelämän tuntemusta. Elinikäisen oppimisen näkökulmasta voidaan edelleen todeta, että nykyiset käytännöt ja periaatteet työelämän aikuiskoulutuksessa eivät kannusta ja tue ikääntyviä aikuisia osallistumaan. Ongelmana on se, että "standardimenetelmät" on edelleen voittopuolisesti suunniteltu nuorehkoille ja suhteellisen hyvän pohjakoulutuksen omaaville aikuisille. Siksi yhden suurimmista haasteista ikääntyvän työväestön oppiminen ja koulutus asettaa aikuiskouluttajille ammatillisessa koulutuksessa. Ikääntyville - ja yleisemminkin vähän muodollista pohjakoulutusta omaaville - osallistujille sopivien oppimista tukevien menetelmien ja lähestymistapojen kehittämisen ohella erityisenä haasteena on kouluttajien asenteiden muuttaminen.

Liike-elämän asiantuntija ja visionäristi Charles Handy (1996) on esittänyt, että kun perinteisesti kansakuntien vauraus on perustunut luonnonvaroihin, on tulevaisuudessa tuon vaurauden perusta oleva osaamisessa. Vaikka työelämässä onkin alettu yhä enemmän korostaa korkeatasoista ja laajapohjaista osaamista, ei sen sisältöjä ole yrityksistä huolimatta pystytty kovin selkeästi kuvaamaan. Keskeinen kysymys on edelleen, miten määritellä "korkeatasoinen osaaminen" ja "pätevä" työntekijä erilaisissa työtehtävissä ja erilaisilla työaloilla? Puuttuu myös välineitä, joilla analysoida ja kartoittaa osaamista ja osaajia. Työkokemuksen lisääntyminen vaikeuttaa edelleen yksilön osaamisen ja tuottavuuden määrittämistä, erityisesti silloin kun muodolliset kvalifikaatiot puuttuvat. Tästä syystä voidaan päätellä, että ei ole selkeätä näyttöä siitä, että ikääntyvien työntekijöiden osaaminen olisi huonompaa ja työsuoritukset heikompileatuisia kuin nuorempien. Tällaiset oletukset perustuvat edelleen vahvasti modernille yhteiskunnalle tyypillisiin stereotyyppisiin näkemyksiin iäkkäämpien ihmisten arvosta ja kykenevyydestä. Suurten yritysjohtajien vaalimasta laaja-alaisuusretoriikasta huolimatta nykyisessä työelämässä kysytty ja arvostettu osaaminen on käytännössä kapea-alaista (määriteltynä esim. työntekijän kronologisen iän kriteerein) samoin kuin näkemykset osaajista ja tuottavista työntekijöistä. Osaamisen erilaisuutta työelämässä ei siis osata vielä hyödyntää. Erilaisuudet nuorten ja vanhempien työntekijöiden osaamisessa mielletään yleisesti tulokseksi iästä sinänsä, vaikka kysymys on ensisijaisesti kokemuksen tuottamasta erilaisuudesta.

Työelämässä työnantajat ja työn johto sekä heidän asenteensa ovat ratkaisevia silloin, kun puhutaan ikääntyvän työväestön osaamisesta ja koulutuksesta. Kun työpaikat on alettu tunnustaa keskeisiksi arkipäivän oppimisympäristöiksi, on työnjohdon rooli keskeinen elinikäisen oppimisen ja koulu-

tuksen periaatteen todentamisessa. Iän ohella myös muiden ominaisuuksien lisääntyvä erilaistuminen työväestön keskuudessa merkitsee suuria haasteita johtamistaidoille (Liebig, 1988) ja -koulutukselle. Kun pyritään vaikuttamaan ikääntyvän työväestön asemaan työelämässä ja heidän ammatilliseen osaamiseensa ja koulutukseensa, kehittämistä ja kehittymistä koskevat vaatimukset ja toimenpiteet onkin ikääntyvän työväestön itsensä ohella tarpeen kohdistaa myös työnantajiin ja työnjohtoon. Kaikista työmarkkinaosapuolista työnantajat näyttävät pitävän ikääntyvän työväestön osaamista heikoimpana. Kuitenkin he ovat kiinnittäneet hyvin vähän huomiota tämän työvoiman osan kehitystarpeisiin (Hejden & Thijssen, tulossa). Sillä ajattelutavalla, joka ikääntyvistä työntekijöistä työelämässä (ja yhteiskunnassa) omaksutaan, on suora vaikutus näiden osaamisen kehittämiseen. Yhtäältä voidaan ajatella, että ensisijaisesti ikääntyviltä työntekijöiltä *puuttuu* tarvittavia ominaisuuksia (tietoja, taitoja, jne.) ja että heillä on vain vähän annettavaa. Tällöin heidän työmarkkina-asemansa parantaminen oppimisen ja koulutuksen avulla on vaikea ja vaativa tehtävä. Toisaalta voidaan ajatella, että ikääntyville on kokemuksen myötä karttunut arvokasta osaamista, joka näyttäytyy erityisenä vahvuutena nuorten osaamisen rinnalla ja jonka hyödyntäminen on kaikkien edun mukaista. Tällöin heidän työmarkkina-asemansa parantaminen on helpompaa, koska heidät voidaan mieltää myös "opettajiksi". Edelleen kuitenkin kaivataan enemmän tietoa niistä prosesseista, joiden kautta kokemus muuntuu tiedoksi ja osaamiseksi negatiivisen urautumisen sijaan.