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CEDEFOP assists the European Commission in encouraging, at Community level, the promotion and development of vocational education and training, through exchanges of information and the comparison of experience on issues of common interest to the Member States.

CEDEFOP is a link between research, policy and practice by helping policy-makers and practitioners, at all levels in the European Union, to have a clearer understanding of developments in vocational education and training and so help them draw conclusions for future action. It stimulates scientists and researchers to identify trends and future questions.

CEDEFOP's Management Board has agreed a set of medium-term priorities for the period 2000-2003. They outline four themes that provide the focus of CEDEFOP's activities:

- promoting competences and lifelong learning;
- facilitating new ways of learning for a changing society;
- supporting employment and competitiveness;
- improving European understanding and transparency.

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Policies and perspectives: an interview with Commissioner Viviane Reding



Viviane Reding

European Commissioner for Education and Culture

Introduction

Viviane Reding is from Luxembourg. Her professional career began as a journalist on the Luxemburger Wort in 1978 and from 1986 to 1998 she was president of the Luxembourg Union of Journalists. In her political career she was elected Member of the Luxembourg Parliament in 1979 and of the European Parliament in 1989, representing the Parti Chrétien-Social. Ms Reding was appointed Commissioner for Education and Culture in 1999.

Congratulations on your appointment as Commissioner for Education and Culture. Within the new structure of the European Commission, responsibility for European Community vocational training policy now lies with you and the Directorate-General for Education and Culture. What do you see as the role of your Directorate-General and where does vocational training fit in?

The creation of this new Directorate-General is the result of a clearly stated aim, namely to add "soul" to a European Union which has sometimes seemed to lack it. This is why the new Commission decided to combine areas directly affecting European citizens: education, training, youth issues, sport, culture and audiovisual media.

The "Education and Culture" Directorate therefore has a solid base, and a clear priority: to enervise all these sectors on a European level. Different as they may be, with individual features, they are all capable of creating jobs – in some cases even clusters of jobs. It will be clear why

Community vocational training policy is receiving my full attention.

Vocational training, however, no longer features either in your title as Commissioner or in the name of your Directorate-General. How important is vocational training in the context of European policies generally?

As you know, Agenda 2000 places Community policies intended to increase the knowledge and skills of our human resources on central stage, with an eye to the further development of the European Union. That is why the previous Commission was already making these policies a key priority.

It is also important to remember that the new Preamble to the Treaty of Amsterdam underlines the signatories' determination "to promote the development of the highest possible level of knowledge for their peoples through a wide access to education and its continuous updating".

It is clear today that prosperity and economic development, general wellbeing and personal fulfilment are linked to knowledge: to its production by means of research and its dissemination through education and training. Thus, education and training policies are of decisive importance for a successful European Union.

The European Union is currently facing not only the challenge of enlargement but also the major tasks of achieving growth and social cohesion and of solving the fundamental problem of unemployment. To meet these challenges the Union will

On the occasion of the inauguration of CEDEFOP's new building on 22 November 1999, Viviane Reding sets out her plans for the future of vocational education and training.



"I believe that it is very important to create and consolidate a well-organised framework of political co-operation with the Member States. It is true that Community action programmes in the fields of education and training are there to support and supplement actions undertaken by Member States; but it is also true that full use has not yet been made of the possibilities offered by Article 150 of the Treaty for the implementation of a Community vocational training policy."

have to act in a purposeful, concerted way.

What are your plans and priorities for vocational training policy at European level?

Our primary objective must be to construct a European educational and cultural space in which all citizens of the Union are actively involved. Within this space, individuals of all ages will be able to fulfil their potential thanks to the high-quality educational and training resources they have access to and the range of formal and informal learning experiences open to them; young people will be able to play an active part in society; and citizens will prepare for tomorrow's Europe. In short, this will be a space that helps create a "citizens' Europe".

In your view, what needs to be done to create a European educational and cultural space such as you describe?

I believe that it is very important to create and consolidate a well-organised framework of political co-operation with the Member States. It is true that Community action programmes in the fields of education and training are there to support and supplement actions undertaken by Member States; but it is also true that full use has not yet been made of the possibilities offered by Article 150 of the Treaty for the implementation of a Community vocational training policy. It is therefore essential, if these policies are to be successful, to strengthen dialogue and co-operation with the Member States, particularly in order to find solutions to issues of mutual interest and to direct Community action. Three key questions are already at the heart of this dialogue.

The first of these is the role of education and training in employment policies and, more specifically, European employment strategy. In this area, the vocational education and training aspect of National Employment Programmes needs to be analysed and indicators of the participation of individuals in lifelong education and training need to be developed. It is also important to analyse the incentives which Member States employ to promote lifelong training policies. Such incentives include the recognition of skills acquired

in the workplace, agreements between the social partners linking training and work organisation, or similar agreements linking training with the reorganisation of working time.

The second issue is that of the quality of education and training at all levels. As in education generally, the concept of "quality" in the field of vocational training is interpreted in a number of ways, mainly because it is applied to different settings, such as public and private training bodies or companies.

The third issue is the promotion of mobility, including recognition of qualifications. Thanks to the Leonardo da Vinci programme, some 150 000 citizens have already benefited from transnational mobility. This allows people to acquire extra work experience or training in a variety of social, occupational and cultural settings and thus contributes significantly to integrating young people into the labour market.

Other very important questions relate to the recognition of time spent on acquiring training and/or work experience within such mobility projects. The imminent implementation of European alternance training courses and the European Training Pass could make a very useful contribution here.

To deal with these issues, as with others, dialogue with the Member States requires not just a reshaping of policy procedures and debates but also the implementation of a scientific and technical system which will identify and tackle national problems; collect and make use of information and experience gained in each Member State; find examples of good practice and make them widely known.

Community policies for vocational education and training must respond to a variety of needs and pressures, and it is true that these are sometimes difficult to reconcile. This means that we must make more effective use of all instruments for action, co-operation and dialogue, especially with the social partners.

In working towards the goal of lifelong training we must encourage dialogue with all players in vocational training. This



European-level dialogue must be intensified in order to ensure the necessary co-operation between the state, authorities at various levels, firms, social partners and training bodies.

The year 2000 sees the launch of the second phase of the Leonardo da Vinci programme. How do you think it can contribute to achieving the priorities you have outlined?

I must emphasise just how important the Leonardo da Vinci programme is, above and beyond these policy priorities. The second phase begins on 1 January 2000 and ends in 2006. Its mission remains unchanged: to create a European training space in order to meet the challenges of growth and competitiveness, and to create transnational and "multi-player" partnerships favouring the development of skills and competences, thus offering citizens greater chances of integration and

reintegration into working life. The programme creates considerable opportunities for innovation which must be fully used in the future. We must ensure more efficient management of the programme but also increase its medium-term impact, mainly by getting the most out of project results and letting all interested parties know about them.

We must make sure that countries which are candidates for accession to the EU participate successfully in the Leonardo da Vinci programme, which is genuinely pan-European in nature. The opening up of the Leonardo da Vinci programme to candidate countries has already allowed a large-scale exchange of experience, thus improving the quality of training these countries offer. Obviously this process must continue and be strengthened by the new generation of education and training programmes.

Commissioner Reding, thank you.

"In working towards the goal of lifelong training we must encourage dialogue with all players in vocational training. This European-level dialogue must be intensified to ensure the necessary co-operation between the state, authorities at various levels, companies, social partners and training bodies."



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Making older adults more employable – can it be done?

There is growing interest in increasing the "employability" of older adults, since the population is ageing and there are fewer young people coming through into the workforce. This article analyses the perception that as people get older they can no longer "keep up" and cannot learn new skills. It describes which skills deteriorate and which skills improve as people get older, and which factors play a part in the ageing process. Prospects for the future are also considered, as is personnel policy geared to career development, and mentorships.

1) For the purposes of this article the terms "older adults" and "older workers" are interchangeable. It has gradually become the convention to talk about "older workers". As we, in the context of training, also consider training for people who are unemployed, we frequently use the term "older adults".

Introduction

The era of "flexibility", in which workers must be able to adapt and learn if they are not to be forced out of the world of work, has prompted the question of whether older adults are able to respond positively to these increasing demands for versatility and flexibility. Recently, the notion of "employability" has often been considered in conjunction with this need for versatility.

The "employability" of older adults ¹

"Employability" was a constant theme in writings on human resource management and in European policy-making circles in the second half of the 1990s. Employability means "employee adaptability", a person's ability to react to changes in tasks and responsibilities at work and in the working environment. The concept was devised as a new way of measuring security of employment ("employability for life" rather than "a job for life") in relation to job instability and uncertainty of employment. "Employability" and flexibility are thus related concepts.

Sometimes employability is viewed in terms of six forms of employability, but sometimes the term is used solely in relation to training. The six forms of employability are usually considered to be as follows: geographical employability (the

extent to which workers can be employed at physical locations other than their present ones), quantitative employability (the willingness of workers to work variable hours), functional mobility (the ability of workers to perform multiple tasks within one functional area), qualitative employability (the ability of workers to operate in a range of different functional areas), willingness to undergo training (the extent to which workers are prepared and motivated to undergo training) and motivation for change (the extent to which workers are motivated to bring about change and help to maintain the dynamic of their own organisation).

There is a perception that as people get older they can no longer "keep up", that they are no longer able to be as flexible as they need to be and above all that they cannot learn new skills. It goes without saying that the ability to learn (new skills) is an absolute *sine qua non* if one is to remain in employment or return to employment. The figures show that the proportion of people in the higher age categories has fallen drastically over the last few decades.

In 1994 the rate of employment for the population as a whole in the European Union was 55%, but for those in the 50-64 age group it was only 50% (compared with 81.7% for the age group 25-46) (*De arbeidsmarkt in Vlaanderen*, 1996). According to Eurostat figures, Belgium (in 1995) had the lowest level of male employment for the age group 50 - 64. After



Belgium come France, Luxembourg and the Netherlands (see table 1). In Belgium and the Netherlands, the last five years have seen a very marked growth in interest in the employability of older adults.

So what are the reasons for this fall-off in employment? Does the perception of older adults as slow or inflexible square with the reality? In this article we attempt to provide answers to these questions, looking particularly at the learning abilities of older adults and their willingness to undergo training.

We draw on two types of material. Firstly we refer to research findings from a variety of disciplines. We summarise a review of the literature on the learning capacity of older adults². But we look at more than just learning capacity alone. Studies yielding pointers to other factors which affect the employability of older adults are also reported. Our second source is the results of a 1997 research project which the authors of this article conducted for the IISA³ in a number of companies in the Antwerp metalworking industry (De Coninck & Kiekens, 1997). The purpose of that project was to study how older workers in different occupational environments achieved a given level of "employability". Lastly, we examine the policy trends which have emerged in recent years.

The employability of older adults is described, with increasing urgency, as one of the major issues which the labour market will face over the next few decades. We thus look too at the related social issues, and we are talking here of issues "plural", because a growth in concern for the employability of older adults naturally raises a number of social questions as well.

Different dimensions in considering the employability of older adults

Why make older people more employable? Why is this an issue? The answer is not easy, and there are several dimensions to it.

Table 1
Percentage of men and women aged 50-64 in employment in the EU Member States in 1995

	Men	Women	Total
Belgium	51.2	22.3	36.5
Denmark	77.3	53.3	65.2
Germany	67.3	43.8	55.5
Greece	69.2	28.8	48.2
Spain	65.8	24.7	44.3
France	54.1	40.2	47.0
Ireland	72.6	26.3	49.6
Italy	56.5	21.1	38.3
Luxembourg	54.6	19.5	37.0
Netherlands	58.4	29.5	44.0
Portugal	70.4	42.9	55.9
United Kingdom	71.5	51.6	61.4

Source: Eurostat (1996)

To start with, the population is getting older. The average age is rising because fewer younger people are coming through into the labour market. As a result, there are more older than younger people available for work. But firms prefer to take on younger people. Their expectation is that younger people will be more flexible and more ready to learn than older people. They do not see older adults as worth employing, and consequently these adults are forced out of the world of work earlier. Given the ageing of the population and the dearth of young people entering the workforce, this situation is not tenable in the longer term. The reasons are as follows.

More older people are retiring and more are retiring early, which means that the cost of social security is rising. Social security costs, depending on the scheme concerned, are funded largely by the working population. Since the working population is getting smaller, the purse out of which social security is funded is getting smaller too. This purse shrinks anyway when there is an ageing population but it will do so all the faster if early retirement is introduced on a large scale.

Forcing workers out of the labour market earlier may ultimately lead to the social

"There is a perception that as people get older they can no longer 'keep up', that they are no longer able to be as flexible as they need to be and that they cannot learn new skills.. (...) an absolute sine qua non (...) to remain in employment or return to employment."

2) A first version of this literature review was presented by Dominique Kiekens on 25 May 1998 to an academic seminar at the University of Antwerp, held as part of the ADAPT project "AGE".

3) Inter Universitair Instituut voor de Studie van de Arbeid (Interuniversity Institute of Employment Studies), working in Flanders.



“The employability of older adults is described, with increasing urgency, as one of the major issues which the labour market will face over the next few decades. (...) To start with, the population is getting older. The average age is rising because fewer younger people are coming through into the labour market “

“(...) Older workers say themselves that their physical capacities in particular decline with age but that their social and mental skills improve. (...) We should take older people off heavy physical work and put them, for example, in positions requiring accuracy and precision.. (...) Older people can be used within the company to train others. (...) Older people also think about the kind of attitudes needed in the company. Here too they can guide and advise younger workers.”

“Given the range of skills which improve precisely as people get older it would be foolish to allow this group of the population to be lost to the labour market prematurely”

exclusion of a particular section of the population. The more the system of early retirement becomes the institutionalised norm, the less older people will be expected to play an active role in society and the more they themselves will believe that they are no longer any use to the world of work.

As the population ages and people take early retirement, the proportion of the pool of labour available to employers also declines. At the same time the specific skills these older workers possess are lost to the labour market. Despite the perceptions people have of older workers, this population group has a lot of skills are of great benefit to the labour market.

Which skills improve and which skills deteriorate as people get older?

From our study of the employability of older metalworkers we know that older workers say themselves that their physical capacities in particular decline with age but that their social and mental skills improve.

Physical capacities include body strength, tolerance of physical stress loads, visual acuity, hearing, general health and speed of recovery. Body strength declines gradually with age whilst tolerance of physical stress loads, for example, falls sharply between the ages of 31-35 and less sharply between the ages of 41-50. General health too dips at age 31-35 and age 46-50; during other periods of ageing it declines less steeply. Thus it is not really possible to speak of a real cut-off point in the pattern of physical capacity. But physical capacity may decline faster in some age groups than in others.

Social and mental skills include mental resilience, the ability to see things in perspective, to think before acting, creativity, responsibility, company loyalty and interpersonal skills. With the exception of company loyalty, all these skills increase with age. Those which increase the most are thinking before acting, responsibility and interpersonal skills. It also emerges from the study that older workers themselves feel that they have acquired valuable experience over the course of their career.

Which occupations are best suited to an older workforce?

Given the range of skills which improve precisely as people get older it would be foolish to allow this group of the population to be lost to the labour market prematurely. How can they be used up to a later age? Firstly by giving them adequate opportunities for personal development, throughout their working lives. And secondly by allocating older people to functions in which their enhanced skills will be used most. We should take older people off heavy physical work and put them, for example, in positions requiring accuracy and precision, because precision motor skills improve with age. Given that social skills in particular improve, and the breadth of experience increases with age, older people can be used within the company to train others. Older people have built up a network of contacts. They can introduce younger workers to these contacts. Older people also think about the kind of attitudes needed in the company. Here too they can guide and advise younger workers. The specific functions which are suited to older workers are currently being studied in the Adapt project “Age”. Jointly with Adulta (Finland) and Loughborough College (England) we are working on a number of operational models for preserving the employability of older adults. The work includes writing a brochure on training and older people, studying ROME (a French system modelling changes in career direction), and devising a mentorship scheme, i.e. a system whereby older people can act as mentors to other older people. The many skills which people develop as they get older mean that they can continue to be a part of the world of work.

Older adults, ability and willingness to learn

The ability and willingness to learn have become crucial if people are to remain in employment. “Learning is often described as a good way of increasing older workers’ participation in the labour market. And rightly so. Older people receive less occupational training than younger people, despite the fact that it enhances their



employability” (Groot, Maasen van den Brink, 1997).

In this article we focus on the ability and willingness of older adults to undergo training. What do we know about their ability and willingness to learn?

What do we mean by “older” and what do we mean by “older adults”? These things have been varyingly defined in the past.

Differing views of ageing

Researchers from different disciplines emphasise different facets of the ageing process.

Biologists concentrate on biological factors which determine how long people live. Psychologists look at age-related changes in individuals’ behaviour (e.g. the effects of ageing on the ability to learn and memorise, intelligence, skills, motivation and emotion). Over the years biologists and psychologists have traced different curves for the ageing process. In general, ageing was seen in terms of the growth (up to a given age), peaking (at a given age) and decline (from a given age) of all abilities simultaneously. This curve is hill-shaped and so the term “hill metaphor” is used. Researchers now see ageing more as a “rectangular process” in which abilities increase up to a given age, then remain steady, rise or fall, and finally all decline, culminating in death. This process varies greatly from one individual to another. Thus, on the one hand older adults may retain certain abilities by using compensatory mechanisms. For example, older people may take more time to perform certain actions or may undertake fewer activities, but those activities which they do perform will be performed more accurately and more precisely. On the other hand, studies involving personnel managers show that managers themselves are aware that certain skills of older workers increase whilst others decrease. The IISA study of the employability of older metalworkers also reveals that some abilities deteriorate with age whilst others improve. Those which deteriorate include primarily physical faculties such as hearing, visual acuity and memory. Those which improve are primarily social or mental skills, such as

thinking before acting, responsibility, loyalty and interpersonal skills.

For sociologists, ageing is defined in social terms. For each of the different phases of life there is a model of what a person’s role in society should be. Role changes in institutions such as the family, the social security system or the employment structure have a powerful effect on the way in which old age is defined. Sociologists look at how people make the transition from one role to another. They look at how people’s behaviour changes as a result of this role change. In other words, sociologists look at the social factors which affect human behaviour and at the social consequences which follow from human behaviour.

These various perspectives tell us that quite a few factors (physical, mental and social) play a part in the ageing process. Any study of the older adult requires us to combine, or at least juxtapose, these various approaches.

What is an older adult?

Firstly, older adults are quite simply individuals. Each adult ages in a very specific way. Life course psychologists emphasise that an individual’s life may be marked by both stability (capacities are retained) and change (capacities increase or decline). People differ in their genetic makeup *and* in the way in which that makeup interacts with different environments (family, school, work).

Alternatively, specific social significances (roles) are linked to specific biological parameters (e.g. ethnic origin), where several different people are exposed to the same circumstances. This way of thinking divides the group of older adults into subgroups (by gender, race, income). Henkens concludes in his study of the literature that “older people form a heterogeneous group depending on their experience and the various opportunities they have had. The work experience of older adults is stratified according to occupation, ethnic origin, level of education and training, gender...” Certain factors will also be found more frequently (together) in certain economic sectors. Social demographers divide the population into cohorts. Cohorts are groups with a homo-

“Researchers now see ageing more as a “rectangular process” in which capacities increase up to a given age, then remain steady, rise or fall, and finally all decline, culminating in death.”

“(…) some abilities deteriorate with age whilst others improve. Those which deteriorate include primarily physical attributes such as hearing, visual acuity and memory. Those which improve are primarily social or mental skills, such as thinking before acting, responsibility, loyalty and being good with people.”



“(...) physical, mental and social factors all play a part in the ageing process. We also know that people become old at different ages and that they are defined as being old at a specific age. (...) So there is no fixed age at which people qualify as older adults.”

geneous age structure who have experienced the same life events, whose social position is the same and who live by the same standards.

In other words, physical, mental and social factors all play a part in the ageing process. We also know that people become old at different ages and that they are defined as being old at a specific age. Thus, for example, someone may be physically and mentally “old” at the age of 70, when he or she has already been retired for ten years. So there is no fixed age at which people qualify as older adults. And it is equally hard to specify an age at which the older worker is “older”.

Can older adults learn?

Whilst there are differences in the way in which the ageing process is defined, and whilst it is difficult to pick an exact age which divides young from old, the question remains whether older adults are still able to learn. Answers are provided here by neurology (ageing of the brain), cognitive psychology and social psychology.

Neurology

According to Birren & Shaie ageing affects the brain as follows. A first effect is that the number of neurones decreases with advancing age (Birren & Shaie, 1995). It is worth stating here that the greatest neurone loss occurs during childhood and that most neurones are retained throughout life. Older adults also retain a certain level of plasticity throughout life. Plasticity is the mechanism in the brain which makes cognitive and emotional growth possible. This mechanism can best be compared to the building of bridges between neurones. When we suddenly understand something we have made a link in our brain between two neurones. “Cognitive function (learning) depends primarily on connections between neurones and less on the number of neurones” (Kolinsky, 1996).

According to some authors, ageing brings a slow-down in the processing of information. That means that response to learning, the ability to do and the ability to understand, is slower. In addition to factors intrinsic to the actual processing, other things too may be responsible for

this slow-down. The following factors may be partly responsible for slower information processing in older adults. Environmental factors such as lighting and acoustics. With age the pupil of the eye becomes smaller (Winn, 1994), focussing becomes harder (Elworth, 1986) and it also becomes harder to locate a sound source (McDowd, 1988). In other words, adequate light and a clear acoustic speed up the processing of information by older adults.

Whether or not learning is an imperative

The nature of the need to learn may also be a contributory factor in slower information processing. On the one hand, choice in the material to be processed stimulates the memory and, on the other hand, irrelevant information is processed at the expense of relevant information (Bloom, 1976; Guskey, 1997; Block, 1971). The mechanism of storing new information needs rather more explanation. On the one hand, newly stored information hampers the recall of information stored earlier. According to Peterson this process can be minimised by making a sufficiently clear distinction between the successive learning tasks (Peterson, 1983). On the other hand, information already acquired may make it harder to absorb new information. Thus, for example, prior familiarity with a typewriter may complicate the learning process for someone learning to use a computer (Halasz, 1982). For someone typing text, hitting the enter key at the end of a line is a normal typing manoeuvre which will be incorrect if that person is word processing on a computer. The new information which the person has to acquire conflicts with his own ideas and existing knowledge - something which older adults find it hard to come to terms with. According to Bolton it is best if the instructor ascertains right at the start of a learning situation what the acquired capacities of older students are (Bolton, 1978). It is then very important for them to put across clearly the relevance of the new information. Ultimately the new information can be accommodated in the student's mind side by side with the existing information. In our illustration of the typewriter and the computer this means first appreciating the ability to type (and the typewriter), secondly explaining the benefits of word



processing using a computer, and thirdly comparing the differences and similarities between the two.

Neurologically, older adults can certainly learn, though the learning process in this population group will be slower. But if we take account of environmental factors and certain features of the requirement to learn we can minimise this slow-down of information processing.

Cognitive psychology

Birren & Shaie compare the effects of ageing on the brain to a process of maturing or further development in adulthood (Birren & Shaie, *op. cit.*). Characteristic of this process is the fact that adults progress as they grow older towards a different kind of intelligence. With age a "bottom-up" processing of information gives way to a "top-down" method of processing. Cattell, Horn and Salthouse speak in this context of a transition from fluid intelligence to crystallised intelligence (Cattell, 1987; Horn, 1989; Salthouse, 1984).

"Bottom-up" processing takes a lot of energy. This process is based on the intensive collection of data with little feedback from previous experience. When individuals are confronted with an entirely new problem in their daily life or a learning situation they cannot draw on previous experience to deal with that problem. Considerable energy then goes into finding a way of dealing with the problem. "Top-down" processing, on the other hand, *is* based on already stored information. This means that in this form of processing problems can be dealt with by retrieving the appropriate information.

The difference between fluid and crystallised intelligence is the same as the difference between "bottom-up" and "top-down" processing. Fluid intelligence consists of abstract reasoning, a fast response and the fast processing of information, whilst crystallised intelligence is based on understanding and experience gained in the course of the individual's life.

Thijssen makes a link between the specific intelligence of older workers and the contemporary work situation. He does this using the concept of a "concentration of experience". This is presented as experi-

ence which increases in quantity over the years but decreases in diversity. The effects of this process are both negative and positive. According to Thijssen, however, this concentration of experience has predominantly negative effects at times of rapid change. "People will be relatively disinclined to gain new qualifications by undergoing training or instruction or to build on their existing experience in a way which will make them more employable." We shall see later in this article that willingness to learn is indeed not automatic in older adults.

All this prompts us to conclude that older adults use a different form of intelligence from younger adults. According to Thijssen, this form of intelligence is less valued at times of rapid change. The concentration of experience (derived from crystallised intelligence or "top-down" information processing) is also thought to impede the willingness of older adults to learn.

Social psychology

So far we have outlined arguments which suggest that older adults *are* able to learn. But older people will only make full use of their ability to learn if they are convinced of their own abilities. This principle is referred to in the literature as "self-efficacy" (Bandura, 1995). "Self-efficacy" (or belief in one's own ability) is influenced by four different sources: primary experience, secondary experience, verbal conviction and psychological aspects of the moment itself.

Primary experience is previous experience in given situations. Thus individuals with previous experience (of training) and previous success (good results, pay rise, career advancement) will have greater faith in their own (learning) abilities. Positive experience creates greater belief in one's own learning abilities, whilst negative experience will gradually undermine that belief. Bloom refers to academic self-concept here (Bloom, *op. cit.*). Secondary experience on the other hand derives from observing the efficacy expectations of other older adults. In other words, if one older adult believes in his own abilities, this has a positive influence on the efficacy of other older adults. Verbal conviction refers to the degree of support given by other people such as family, manag-

"Characteristic (...) is the fact that adults progress as they grow older towards a different kind of intelligence. With age a "bottom-up" processing of information gives way to a "top-down" method of processing. (...) "Bottom-up" processing takes a lot of energy. This process is based on intense collection of data with little feedback to previous experience. (...) "Top-down" processing, on the other hand, is based on already stored information."

"(...) older adults use a different form of intelligence from younger adults. According to Thijssen, this form of intelligence is less valued at times of rapid change. The concentration of experience (derived from crystallised intelligence or "top-down" information processing) also impedes the willingness of older adults to learn. (...) Apart from the ability to learn there is also the question of willingness to learn. The two are of course linked. If one feels able to learn one will also be more prepared to learn. Willingness to learn is encouraged by favourable conditions in which to learn."



“(...) people’s expectations of the future play a major role in their enthusiasm for training. The return on training in terms of higher pay, usefulness and relevance to the job, security of employment and career prospects are seen as powerful incentives to take part in training.”

“As people grow older their career prospects dwindle. Willingness to undergo training then depends all the more strongly on whether the person still has prospects of career advancement.”

ers, instructors and the media. It is important to the learning process in older adults that both managers and instructors should believe in the learning abilities of older people.

Lastly, psychological input from the moment itself means specific feelings and emotions of the moment which may weaken or strengthen an individual’s faith in their abilities.

The personnel manager’s view of older people - the self-fulfilling prophesy

Management’s view of the learning abilities of older adults influences the perceptions which these persons have of their learning abilities. Often they are not offered further learning opportunities. The inability to learn then becomes a self-fulfilling prophesy. There are strong indications that these prejudices are widespread amongst managers and personnel managers (Bouman, 1996; Simoens, Denys & Omeij, 1995).

Willingness to learn

Apart from the ability to learn there is also the question of willingness to learn. The two are of course linked. If one feels able to learn one will also be more prepared to learn. Willingness to learn is encouraged by favourable conditions in which to learn.

The future return

The study on the “Employability of older workers in the Antwerp metalworking industry” (De Koninck & Kiekens, op.cit.) shows that people’s expectations of the future play a major role in their enthusiasm for training. The return on training in terms of higher pay, usefulness and relevance to the job, security of employment and career prospects are seen as powerful incentives to take part in training.

Respondents with no plans to undergo training were offered a number of reasons for their non-participation. They were asked to rate these on a scale of 1-5 (see table 2). The highest-scoring reasons were: “study is not adequately rewarded in terms of career prospects” and “study is a waste of effort”. These are the average replies for all respondents

(younger as well as older ones). But the older the respondents were, the more weight they gave to these reasons. They consistently scored highest in the age group 41-45. As people grow older, their career prospects dwindle. Willingness to undergo training then depends all the more strongly on whether the person still has prospects of career advancement.

Another significant finding of this study is that willingness to undergo training correlates strongly with willingness to be flexible in other areas. Willingness to adapt in one area of employability is closely linked to willingness to make sacrifices in another area. In the areas not related to training, the person assesses what he stands to gain and what he stands to lose. Thus, a person may be very willing to make sacrifices and be flexible about the hours he works, sometimes with a very heavy workload, if a great deal is offered in exchange: for example flexibility in the functions performed (the job itself is intrinsically interesting). Willingness to undergo training thus has to be seen in the overall context of a worker’s place of employment.

The study of older workers in the Antwerp metalworking industry shows that this versatility in older workers varies from one occupational environment to another. Factors such as physical and mental stresses at work, security of employment and the career prospects which the older adult believes he still has are major determinants of the flexibility he displays.

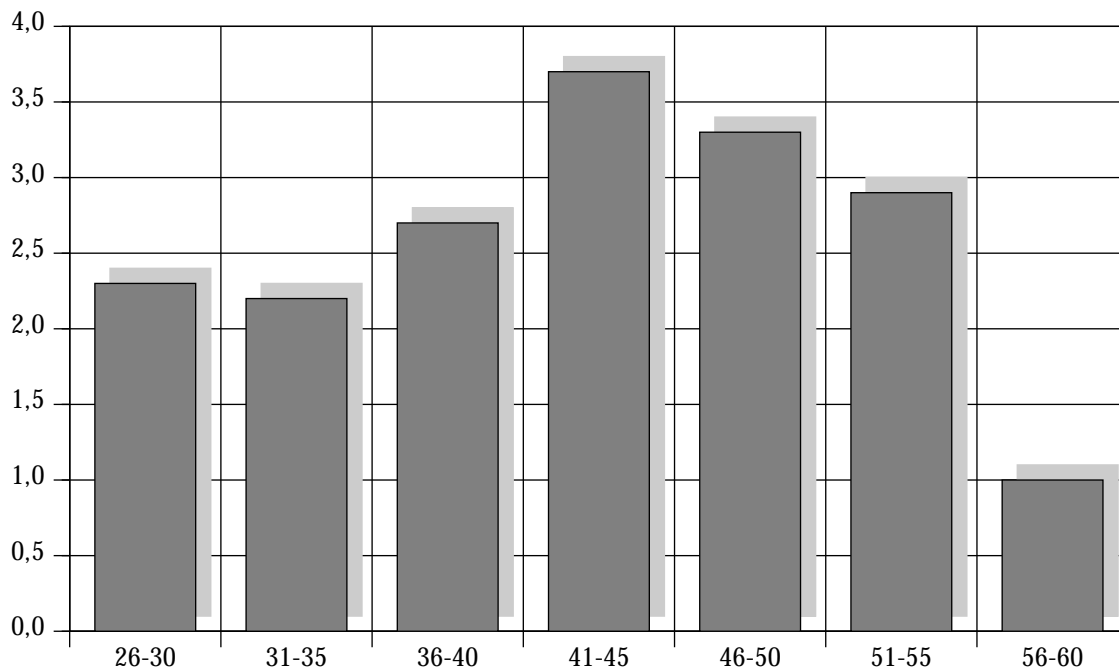
We have talked just now about the influence of working conditions on people’s willingness to learn. But working conditions are also an important reason which determines whether or not people take early retirement (Van Gageldonk, 1978; Van Santvoort, 1982; deZwart et al., 1996; Rasche, 1994).

Ways of keeping older adults in employment for longer

In the last few decades, thanks to research in a variety of disciplines, the employability of older adults has been viewed through a wider-angle lens. Economists



Table 2
Study not adequately linked to career prospects



Age in 5-year categories

say that the level of replacement income plays an important part (Heyma, 1996). Social gerontologists and ergonomists stress the importance of physical and mental stresses at work. Cognitive psychologists focus on the irregular pattern of learning capacities in the course of a person's life. Occupational and organisational sociologists claim that "a lack of career variation and the lack of continuing concern for the proper development of human beings in relation to their work are the main reason why people get into a career rut (van den Berg, Frietman, Hetebrij, Joosse, Krot & Ykema-Weinen, 1996)".

Age awareness in staff policy

In recent years there has been talk of the need for "age awareness in staff policy" (Dresens, 1991)⁴. This policy takes account of factors in people's lives which represent both progression and regression. It looks at the flow of personnel into, through and out of a company. Emphasis is placed on the need for a specific policy on training for older adults. Under an age-

aware staff policy, training is then seen as just one element in a series of other policy lines. Age awareness in staff policy is preventive too. This preventive policy entails a number of different strategies: matching the job to the person, reducing stress factors, following a planned approach of skills development and career structure. Emphasis is placed here on making better use of people's capabilities and on creating favourable conditions in which they can learn.

Matching the job to the person

Jobs (functions) can be matched to people's changing physical and mental skills. Discussions are currently ongoing in the Netherlands on how to combine occupational welfare policy with policy on occupational safety and health for older workers.

An age-defined "job assignment policy" (which includes switching people to other functions) can also play a significant role here. A more concrete form of this is adapting working hours and holidays to

4) In the sectoral initiative of employees of the Antwerp metalworking industry (VIBAM) in the province of Antwerp a plan was drawn up in 1998 which was aimed at persuading the social partners to encourage "age-aware methods of business and management".



“Regular reviews of future skills requirements and reviews of the company’s pool of skills (in different age groups) are seen as major imperatives (...). People are more prepared to invest in themselves if they have more control over their future.”

the ageing employee. Part-time work and a pension is one of these other possibilities.

Career development programmes

J. van den Berg *et al.* prefer to talk here of “career-oriented staff policy”. Regular reviews of future skills requirements and reviews of the company’s pool of skills (in different age groups) are seen as major imperatives here (van den Berg, 1996). The holding of performance interviews where both employee and employer have an input are part of this policy, because people are more prepared to invest in themselves if they have more control over their future. Opportunities for managing the direction of one’s career are very important.

Managers’ prejudices

Continuing concern for the proper development of human beings in relation to their work requires a freedom from prejudice about older workers. As we have seen, the perceptions and expectations of those responsible for personnel play a decisive part in shaping older workers’ attitudes. Because of these prejudices and this stereotyping older adults often do not take part in training measures. A logical consequence is that their knowledge becomes outdated and redundancy becomes even more inevitable. These prejudices on the part of personnel managers are also seen as something which age-aware staff policy must address and oppose.

Mentorships

Exploiting the skills of older adults by creating mentorships: mentorships are a modern version of the mediaeval “master craftsman-apprentice” relationship, whereby the older worker plays a key role in training up a younger worker. Valuable expertise and experience are passed on in a form which is institutionalised to a greater or lesser degree. Under the Adapt project “Age”, British and Finnish partners are designing the mentorship model as a practical example of training.

Conclusion

The reduced participation of older people in the world of work is a social problem with many sides to it. There is the question of how to fund early retirement, which is being taken increasingly earlier. There is also the issue of social justice. The fact that work is central to the way people identify themselves holds true of older population groups too. They too are entitled to job satisfaction and the social contacts work brings. At the same time, there must not be a general compulsion to keep people in employment for longer. It would be unfair to make people work for longer than their capabilities allow. In other words, people can only be kept on in employment in ways which are careful and caring. A policy of this kind needs to be built on a variety of cornerstones.



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Moving ages and edges A lifecycle perspective on ageing and flexibilisation¹

Popular views about the negative impact of ageing on productivity and flexibility suggest that they are perceived as conflicting trends. This article focuses on the theoretical underpinnings of the relationship between ageing and flexibilisation. It aims to clarify the association of these two trends and examine them from a lifecycle perspective. It shows that the rather gloomy view of the impact of ageing on firms' performance and the economy in general has little empirical evidence and rests on a traditional view on the role of the labour market and the welfare state. In a flexible and demanding economy, a different response by welfare states and firms to ageing is needed, resulting in a more balanced distribution of work, education and leisure over the lifecycle. The need is to encourage policies of continuous career-long investment in human capital through career-guidance, flexible work-practices and greater investment in general and job-related education and training opportunities in firms.

Introduction

Popular views about the negative impact of ageing on productivity and flexibility suggest ageing and flexibilisation are conflicting tendencies. The article focuses on the theoretical underpinnings of the relationship between ageing and flexibilisation. The aim is to clarify the association of the two trends and to bridge the two, seemingly, different worlds.

That flexibility and ageing are closely associated follows from the definition of flexibility as proposed by Dahrendorf (OECD, 1986): "flexibility can be taken to mean the ability of systems, organisations and individuals to adapt successfully to changed conditions by adopting new structures or patterns of behaviour". But flexibility in the sense of the ability to adapt to changing conditions by adjusting behaviour is generally presumed to decline with age. Many authors forecast the rise of the "flexible firm" (for example Kling, 1995), better equipped to respond to changing conditions. If that is true, the presumed trade-off between ageing and flexibilisation will worsen the position of older workers. The "flexible firm" will primarily employ younger more flexible and cheaper workers. In a similar vein one presumes productivity rises and declines with age, providing a rationale for ageist hiring and firing policies.

Ageist manpower policies in firms are, in many countries, supported by generous early retirement policies justified by unions, employers and government. Their goals are to resolve redundancies, redistribute employment from old to young, adjust to contracting demand in periods

of recession and substitute expensive older by cheaper younger labour (Johnson & Zimmermann, 1993). Ageing and flexibilisation are from an economic point of view seen as conflicting tendencies. In line with this, it is presumed ageing will jeopardise the modernisation of industry, increase unit labour costs (because of experience rating in most wage schemes) and reduce economic competitiveness.

These presumptions are examined in more detail. How firms and welfare states can best respond to the presumed ageing-welfare trade-off and some new routes for improving the balance of costs and returns to ageing over the lifecycle are discussed.

The lifecycle perspective on ageing

Demographers have drawn attention to the consequences of ageing. In addition to changing fertility patterns there is a long-term trend towards higher life expectancy. The ageing population and workforce may impose considerable costs on firms to finance rising pension and, indirectly, health care costs (Johnson et al., 1992, 1993). It will also put a heavy burden on younger generations through higher taxes or premiums. Ageing will also lead to increased pressure on firms' wage balances between older and younger workers. If firms react, as in the recent past, by shortening working life and reducing training and education investments, they will face rising direct wages due to a scarcity of young workers and indirect wage costs due to a rising tax burden.

1) An earlier version of the article was presented at the congress 'Ageing and flexibilisation. Conflicting tendencies?' at WORC, Work and Organisation Research Centre of Tilburg University, Tilburg, November 20, 1996.



If firms follow a different route they might improve the productivity-wage balance for older workers, through increased investment in training and education of older workers. Evidence suggests that flexible work practices within firms goes hand in hand with increased investment in training and education (OECD, 1999). The returns might be improved through extended career and education patterns within the firm and less use of early retirement.

The traditional and pessimistic view of the consequences of ageing assumes, like political economy theory, that the burden of rising social expenditures for older people will lead to lower economic growth rates, higher taxes, reduced living standards and declining social cohesion between older and younger generations (Johnson & Falkingham, 1992).

However, there is a growing belief that demographic decisions at the micro-level impact on the economic behaviour and well-being of economic agents (workers, households) over the lifecycle. This demographic approach is useful for examining the lifecycle effects of ageing (Falkingham & Hills, 1995). This raises the question as to what lifecycle theory can teach us about the relationship between ageing and flexibilisation.

Lifecycle theory is concerned with the allocation and distribution of economic resources over the lifecycle. It assumes economic decisions with regard to investment in human capital, labour supply and savings behaviour are taken in a lifetime horizon. The decision rule is to choose the option that guarantees the highest present value discounted over the entire lifecycle. The age, or life stage, co-determine these decisions. People in earlier life stages behave differently from those in later stages of life with respect to labour supply, consumption and savings. Production and distribution of resources over the lifecycle is also affected by life events which trigger decisions to move from one state into another. The sociological life-course theory argues in a similar vein, looking at the impact of life events on transitions from one state to another. The theory rests on the principle of heterogeneity or differentiation, which means that age reflects the cumulative experiences of cohort

members over time placing them on different life pathways (Marshall, 1995). The theory implies the notion of a homogenous elderly population is fictitious.

The political economy of ageing (Estes et. al., 1982, Philipson, 1982) builds on the sociological life-course theory and focuses on the mass retirement of older workers in advanced industrialised economies in the 1960s and 1970s. Retirement is seen as "socially constructed", a deliberate institutionalised practice to exclude the elderly and make them dependent on the welfare state. They believe that the state, in conjunction with ageist firm policies and shortsighted trade unions, played a major role in this process (Laczko & Phillipson, 1991). For that reason the process has been framed the "age discriminatory social process" designed to exclude older people en masse from the workforce' (Walker, 1990).

From age differentiation to age integration

The life-course approach is interesting from a policy point of view. It questions the validity of the image of the three stages in life: too young to work, old enough to work and too old to work (Krain, 1995). A basic characteristic of change in the labour market is the shorter working life due to prolonged education, early retirement, or withdrawal from work. Lifecycle theory sees this as an anachronism. Structural changes in most western states involve not only changes in working life, but also rising longevity and prolonged periods of suffering from health problems in later life, rising average living standards, declining fertility rates, shifts in the gender ratio of labour force participation, and dwindling family networks. Life-course activities no longer fit in the conventional "three boxes of life" image. According to Krain this conventional image has to be abandoned in favour of the concept of "ageing well", which is coming to mean a continual blend of education, work and leisure throughout the life course. It means a departure from age differentiation to age integration (Riley et al., 1994) where education, work and leisure occur together and not sequentially. This blurs the borders between work, education and leisure. Time spent in these three aspects of life

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“With rapidly changing skill requirements, the human capital value of older workers diminishes due to age-related decline of learning abilities, and a perception that ageing reduces productivity. Reviewing 28 studies on the topic, Doeringer (1990) concluded that the performance of older workers is not necessarily better or worse than younger ones, but other factors, such as motivation, self-reliance, recognition, experience and job demands may influence performance with age. (...) Differences in productivity appear larger within age groups than between them.”

will be more equally distributed over the career and lifecycle, and ideas of lifelong learning are connected with lifelong working and leisure spending.

Little is known about the impact of the lifecycle approach on the well-being of people and the performance of firms and economic systems. But it puts a new perspective on the design and content of firms' and welfare states' policies to encourage better distribution of working time, caring obligations, and sabbatical leave for continuous education during working life. More flexible retirement and work practices (job rotation, worker involvement, team-based work organisation etc.) and investment in training and education, particularly for older workers, belong to a range of options in this perspective.

Ageing, human capital and productivity

Lifecycle theory draws attention to the effect of belonging to an age cohort on the development of economic status over the lifecycle. In this respect it rests on human capital theory (Becker, 1964; Mincer, 1974, 1993). Human capital theory deals with the supply of skills and investment in human capital. Earnings rise over the lifecycle due to increases in human capital because of increased work experience and skills acquired on-the-job or through education and training. Human capital theory predicts that the trend of ageing will lead to higher labour costs. Older people leaving work through unemployment or disability will have low re-employment probabilities.

The weak position of older people is due to firm-specific skills, outdated or obsolete human capital endowments, lack of pay-off time for investments in human capital of the older worker, and negative images about their potential productivity. With rapidly changing skill requirements, the human capital value of older workers diminishes due to age-related decline of learning abilities, and a perception that ageing reduces productivity. Reviewing 28 studies on the topic, Doeringer (1990) concluded that the performance of older workers is not necessarily better or worse

than younger ones, but other factors, such as motivation, self-reliance, recognition, experience and job demands may influence performance with age. Research by industrial and social psychologists (Warr, 1994) also suggests that relationships between age and productivity are complex. In almost all instances, differences in productivity appear larger within age groups than between them. Research in the Netherlands shows productivity increases with age up to certain thresholds which vary according to the extent and reach of “human capital investments within the firm” (Gelderblom et al., 1992). Firms spending more time and effort in offering learning to older workers experience productivity gains by driving up the age threshold at which productivity starts to decline. This corroborates a wide range of empirical studies where a positive relationship is found between training and earnings or productivity growth (Bartel, 1995, Black and Lynch, 1996 and Boon, 1998).

A sharp decline in participation rates of older worker

Labour participation patterns of men and women aged 55 years and over show a sharp decline between the late 1970s and the early 1990s. This trend varied considerably across countries. The fall was particularly significant in Germany, Netherlands, France and the UK, however, in Sweden, the United States and Japan it was moderate or even absent.

The explanation for falling participation rates among older workers can best be given in terms of pull and push factors that determine exit from the workforce. Pull factors are the design of pension policies and incentives for early exit through generous benefit systems. High participation rates of men between 55 and 65 years old in Sweden may be attributed to pension policies permitting early and deferred retirement up to the age of 70. Other pull factors are institutional constraints and regulations that forbid age-discriminatory practices on the labour market such as in the United States. Partly for that reason, participation rates of people above 65 years are much higher in the United States than Europe.

Push factors include increases in structural unemployment, the rationalisation



processes in industrial societies and the rising share of the flexible workforce. According to advocates of the structural view, social policies cannot stop the emergence of a variety of employment exit routes. The trend towards flexibilisation of retirement practices, working time, work practices and labour contracts is considered to be one of these.

During the 1980s and 1990s a new phase in employment exit routes was reached (Heuvel et al., 1992; Johnson et al., 1995). Changes in retirement systems since the 1960s and 1970s show a threefold shift. First, from fixed to more flexible systems, second from full-time early retirement to flexible, partial (part-time) and phased retirement systems, and finally from collective to individualised and strictly private systems (life-insurance schemes and private savings). The flexibilisation of the retirement process can be seen from the rise in the 1980s and 1990s of severance and redundancy pay schemes, flexible retirement practices, and unemployment and disability arrangements (Hayward et al., 1994; Kalisch and Aman, 1997). For the firm this provides a variety of employment exit routes to adapt the workforce without much opposition from trade unions or government.

From a broader societal perspective the central role of mandatory retirement schemes was lost and replaced by a variety of ways out of work. Consequently the transition from work into retirement became much more fluid. Pollan and Levine (1995) consider this to be the "fall of retirement" as conditions for conventional retirement disappeared. According to Guillemard (1989), this development can be seen as reflecting a process of de-standardisation or flexibilisation of the life-course.

Flexibilisation of work patterns

The evolution of early employment exit routes took place in the context of a trend towards more flexible working conditions, times and contracts. The ideal firm is a lean and adaptive organisation, where change is a key feature perceived as a basic requirement for survival and suc-

cess. Stability and inability to deal with change are fundamental threats to the organisation (Krain, 1995). But the question arises as to how firms adapt to new demands for flexibility in response to changes in market conditions, and the economic and technological environment. The need to create a more flexible organisation has resulted in a variety of new forms of labour, changing drastically the conventional picture of work over the lifecycle in most western economies (Bosch, 1995).

It is clear that the ageing of the workforce and the trend towards more flexible work are interrelated. There is wide debate about the impact of institutional constraints and rigidities on the labour market on the rise of flexible labour. These rigidities stem from legal practices, the operation of markets and institutions and the existence of formal and informal rules concerning "hiring and firing" or job protection (Emerson, 1988; Droit et al., 1992; Betten, 1995; Danner, 1996; Hylton & O'Brien, 1996). Current trends in the rise of a variety of flexible work arrangements and how these affect the labour market position of older workers are considered below.

Ageing, job protection and wage rigidity

The argument is restrictive firing rules induce firms to use temporary and fixed-term contracts instead of creating permanent jobs to circumvent them. Consequently, the relative number of permanent jobs falls (Grubb & Wells, 1993). The more temporary jobs, the less likely older unemployed people, who because of their high reservation wage (the minimum wage at which they accept a job offer) will get a job. The faster the process of flexibilisation of the labour market, the less likely that the growing numbers of older unemployed people will return to the labour market. This will, *ceteris paribus*, lead to a growing share of older unemployed people and an increase in long-term unemployment, since the length of unemployment for older workers is relatively high. The rise in long-term unemployment may be offset by an increase in employment in a period of economic upturn, or a fall in the supply of young workers. Although the extent to which the

"The flexibilisation of the retirement process can be seen from the rise in the 1980s and 1990s of severance and redundancy pay schemes, flexible retirement practices, and unemployment and disability arrangements (...). For the firm this provides a variety of employment exit routes to adapt the workforce without much opposition from trade unions or government."



“With respect to ageing the rise of flexible work is important since there appears to be a trade-off between the size of the permanent and flexible workforce. (...) Countries with a highly regulated labour market, in some instances, seem to have a larger share of flexible jobs. (...) Where the share of flexible jobs in the total number of new jobs is high (...) the employment prospects for older workers are unmistakably worse. If in these countries ageist hiring and firing policies exist, the rise of flexible employment will reinforce the exit of older workers from the labour market.”

reduction in the supply of younger workers will be offset by increased supply of female and immigrant labour is unclear, the general view is that a shortage supply of young workers and excess demand for older workers cannot be ruled out entirely because of restrictive migration policies in a number of European countries. Whether current rates of economic growth will maintain or increase the number of jobs for older workers depends on a number of things other than market conditions. The possibility of “jobless” growth cannot be ruled out.

Ageing and the rise of flexible jobs

According to Emerson (1988) the debate about the pros and cons of flexibilisation reflects a trans-Atlantic and trans-Pacific controversy about the content and design of employment policies. The United States has, basically, an unregulated hiring and firing system whereas Europe and Japan have comprehensive and regulated labour law systems. Advocates of liberal employment policies argue that the rigid and regulated European labour market system has a negative impact on the performance of European employment policies.

The findings of a number of OECD studies on dismissal protection regulations show, that southern European countries like Italy, Portugal, Spain, and Greece have the highest levels of employment protection legislation for the late 1980s as well as for the late 1990s (see Table 1). France, Germany, Sweden and Belgium have intermediate levels and the Netherlands, Denmark, Ireland and the UK the lowest levels of employment protection legislation.

The results show countries with a highly regulated labour market, like Spain and Italy, have a relatively high proportion of flexible employment whereas countries with low labour-market regulation, like the UK, Ireland and Denmark, have much lower shares. It appears that the creation of flexible jobs is used to circumvent the strong regulations with respect to permanent employment. Table 2 provides some evidence of the incidence of flexible labour by qualification level in some Euro-

pean countries. It shows that unskilled manual jobs constitute the largest proportion of flexible labour (fixed-term contracts) broken down by qualification level (Delsen & Huijgen, 1994).

In Table 3, the number of flexible (temporary) jobs as a proportion of total employment is given for the period 1983 to 1994. In most countries the share of flexible employment increased although in a diverse pattern. In some European countries the proportion of flexible work has remained, by and large, stable such as in Belgium, Luxembourg and Germany. In other countries such as in Spain, France, the Netherlands, the UK and Italy the share of flexible employment increased significantly². The results for France and Spain are quite remarkable. In France the share of flexible employment in total employment tripled and for Spain roughly doubled. For the Netherlands, the share of flexible labour grew from almost 6% to almost 11% in the same period.

An OECD report (1996) provides evidence on the transition rate from unemployment into a permanent or temporary job, and from temporary to permanent jobs for the UK, Germany, France and Spain. It shows that the percentage of unemployed moving into a temporary job in a period of one year varies strongly across the countries. The highest share is generally found among the youngest age categories 15 to 19 and 19 to 24 years. But even for people 25 years of age or older, it appears that in Spain 90% and in France 52% moved into a flexible job, compared to only 23% in the UK and 37% in the Netherlands. The inflow from temporary job to permanent jobs is rather low. After one year the transition rate is 25% to 30% in the UK and France, but only 15% in Germany and 9% in Spain. After two years the transition rate was less than 40% in the UK and nearly 30% in Germany. Even after 4 years the transition rate was less than 40% in Germany. For the Netherlands after 3 years a somewhat higher transition rate from flexible into permanent employment of 50% was found (Muffels et al., 1999).

With respect to ageing the rise of flexible work is important since there appears to be a trade-off between the size of the permanent and flexible workforce. It was

2) In two countries, Greece and Portugal, the lower share of temporary employment in 1994 compared to the early 1980s must be attributed to definitional changes in the early 1990s.



Table 1

A ranking of the strictness of national employment protection legislation (EPL-indicators) in Europe and the United States (with decreasing strictness), mid 1980s – late 1990s

Rank	Employer's interviews			Assessment of statistical data					
	IOE ^a	EC company surveys ^b		Lazear	Bertola (1990) ^c	OECD (1990) ^d	OECD (1999) ^f Jobs study (1994) ^e		
	1985	1989	1994	1956-84	1988	Late 1980s	Late 1980s (1)	Late 1990s (1)	Late 1990s (2)
1	IT	IT	BE	IT	IT	IT	PO	PO	PO
2	ES	NL	ES	ES	BE	PO	IT	GR	GR
3	BE	ES	DE/IR	GR	FR	DE	ES	IT	IT
4	FR	DE		FR	SW	ES	GR	ES	ES
5	DE	FR	FR/GR	DA	DE	GR	SW	FR	FR
6	NL	BE		PO	UK	BE	DE	DE	DE
7	PO/SW	GR	IT	DE	NL	NL	BE	SW	SW
8		PO	NL	BE	DK	SW	NL	NL	BE
9	IR	IR	PO	NL		DK	FR	BE	NL
10	DA	UK	UK	SW		IR	DK	DK	DK
11	UK			UK		UK	IR	IR	IR
12				IR			UK	UK	UK
13				United States	United States		United States	United States	United States

Notes: BE=Belgium, DE=Germany, DK=Denmark, ES=Spain, FR=France, GR=Greece, IT=Italy, NL=The Netherlands, PO=Portugal, SW=Sweden, IR=Ireland, UK=UK, United States=United States

a) Ranks based on the average of the IOE scorings of obstacles to dismissal and to the use of regular and fixed-term contract workers.

b) Ranks based on the share of employers respondents claiming that hiring/firing restrictions are very important or important.

c) Ranks based on combination of legal notice period and severance pay, as averaged for the period 1956 to 1984.

d) Author's compilation from the rankings in Emerson (1988).

e) Ranks based on the average of overall rankings for regular and temporary work in the OECD (1994a)

f) Ranks based on the overall average of summary indicators of the strictness of EPL (version 1 in panel 8 and 9 for regular and temporary employment and version 2 in panel 10 also for collective dismissals)

Source: OECD, Employment Outlook 1999

stated above that countries with a highly regulated labour market, in some instances, seem to have a larger share of flexible jobs. The idea is that when countries experience a period of economic upturn, they first create temporary instead of permanent jobs. In economic downturns the reverse happens and flexible workers are the first to be laid off. Because temporary jobs are often occupied by women and young people, the labour market position of older workers is worse the larger the share of flexible employment. Where the share of flexible jobs in the total number of new jobs is high such as in France, Ireland or Spain, the em-

ployment prospects for older workers are unmistakably worse. If in these countries ageist hiring and firing policies exist, the rise of flexible employment will reinforce the exit of older workers from the labour market.

Flexible work practices

Another aspect of the flexibilisation of work is the need for more functional flexibility given the rise of various types of flexible work practices. In the Employment Outlook (OECD, 1999) evidence is given on four types of flexible work practices: flatter management structures,



Table 2
Distribution of fixed-term contracts by qualification, by country

Country	Unskilled Manual	Skilled manual	Clerical low	Clerical high	Proportion of fixed-term employment
Belgium	41.1	8.7	34.8	15.4	2.1
Denmark	23.5	16.2	33.2	27.1	1.3
Germany	42.0	17.0	23.1	17.9	2.5
Ireland	38.5	15.6	14.6	31.2	2.0
Italy	44.4	7.4	31.7	16.5	7.0
The Netherlands	47.3	4.0	30.4	18.3	6.6
Spain	42.5	21.3	16.3	19.8	12.5
UK	18.4	16.1	25.0	40.5	0.9
EUR8	41.4	13.0	26.2	19.4	2.9

Source: Delsen/Huijgen, 1994 (cited in Bosch, 1995)

“The positive relationship between flexible work initiatives and the existence of training and performance related pay systems might be explained by the related increase in the required skill level of the worker. Evidence from countries across Europe indicates that current practices in most firms are such that job-related training facilities are particularly addressed to young workers in the early stages of their career. (...) The rise of flexible work practices implies that without a radical change in the current age-related training practices the position of older workers is weakened.”

3) The EPOC survey has one major drawback, which is that only information is available on the initiatives that were taken in the last three years prior to the 1996 survey. The results therefore likely underestimate the presence of these practices because the survey misses firms with a long-standing record in these areas.

greater involvement of lower level employees, installation of team-based work organisation and job rotation³. In Table 4 the cross-country raw probabilities of having taken an initiative in these four domains in the last three years prior to the interview are given.

The OECD presents information on flexible work practices based on the EPOC survey in 10 European countries in 1996. There is a great deal of variation across countries in the likelihood of them having taken either one of these four types of initiatives. The UK, Denmark, and Sweden belong to the group of countries that took most initiatives. France, Spain and the Netherlands belong to the intermediate group and Italy, Ireland, Spain and Portugal to the group of countries least likely to have taken initiatives for flexible work practices. Southern European countries are least likely to have taken flexible work initiatives and have, as shown earlier, the most regulated employment protection systems. The countries most likely to have taken these kinds of initiatives like the UK and Denmark have the lowest level of employment protection regulation. But some countries like Ireland, France and Sweden do not fit well in this pattern. The relationship between employment protection legislation and functional or numerical flexibility, is apparently more complex and confounded by other factors such as cultural differences in, for example, workers' attitudes

and differences in technology or management styles. The same conclusion is drawn by the OECD in looking at the relationship between flexible work practices and the use of contingent workers (numerical flexibility). According to the OECD the recourse to flexible working practices therefore does not necessarily imply a growing polarisation between the "core" and the "peripheral" workers (OECD, 1999). Although these results should be treated with caution given the limitations of the dataset, a recent study in the Netherlands (Kleinknecht et al., 1997) came to a similar conclusion.

Though cross-country differences are hard to explain, the OECD found a positive relationship between flexible work initiatives, working time flexibility, the existence of training and more performance or skill related pay systems. What does this mean for the position of older workers? The association with working time flexibility seems consistent with the idea that, for example, working in self-managing or autonomous teams creates more opportunities to depart from standard working times. The positive relationship between flexible work initiatives and the existence of training and performance related pay systems might be explained by the related increase in the required skill level of the worker. Evidence from countries across Europe indicates that current practices in most firms are such that job-related training facilities are particularly



addressed to young workers in the early stages of their career. It appears that especially in southern countries such as Spain, Portugal and Greece, but also in France, Germany and the Netherlands job-related training is strongly age-determined.

The rise of flexible work practices implies that without a radical change in the current age-related training practices the position of older workers is weakened. The increasing need for flexible work organisation will endanger the position of older workers if current human resource management policies do not change fundamentally. For that reason the polarisation of the labour market will take place less along the lines of core and peripheral workers, but increasingly along the lines of older and younger workers. But if firms are willing to develop policies in which job-related training and career guidance are age-neutral, the flexibilisation of work practices could give an autonomous impetus to devote more resources to training older workers. An age-neutral flexibilisation policy could then raise productivity gains associated with the flexibilisation of work practices. If current practices do not change, they will drive up direct and indirect wage costs for younger workers. This will lead to a fall in investment by firms in training for younger workers. Rising wage costs and falling education investment will endanger the competitive strength of the economy, particularly in a knowledge-based, global society. A negative spiral is set in motion that is detrimental to the wage prospects of older and younger workers.

Lessons for the firm and the welfare state

What lessons can be drawn for policies for human resources in the firm and for the welfare state? The conventional approach provides no clear answer to the fundamental questions raised by ageing and flexibilisation. A different perspective that runs counter to the popular beliefs about ageing is needed to find solutions. This new perspective may be found in lifecycle theory which confronts us with a more dynamic approach. Its main com-

Table 3
Temporary employment in Europe, Canada, the United States and Japan

Country	1983	1994	Mean 1983-1994	Difference 1983-1994
Belgium	5.4	5.1	5.6	-0.3
Denmark	12.5	12.0	11.4	-0.5
France	3.3	11.0	7.8	+6.7
Germany^a	10.0	10.3	10.6	-0.3
Greece^b	16.2	10.3	15.7	-5.9
Ireland	6.1	9.4	8.2	+3.3
Italy	6.6	7.3	5.8	+0.7
Luxembourg	3.2	2.9	3.5	-0.3
Netherlands	5.8	10.9	8.6	+5.1
Portugal^c	14.4	9.4	14.8	-5.0
Spain^d	15.6	33.7	28.2	+18.1
UK	5.5	6.5	6.0	+1.0
United States^e	n.a.	2.2	n.a.	n.a.
Canada^f	7.5	8.8	n.a.	+1.3
Japan^g	10.3	10.4	10.5	+0.1

Notes:

- a) 1984 and 1994. Data refer to West-Germany prior to 1992
- b) Due to definitional change in 1992, the data are not strictly comparable with 1983
- c) 1986 and 1994. Due to a definitional change in 1992 the data are not strictly comparable with 1986
- d) 1987 and 1994
- e) February 1995
- f) Figures for 1989 and 1994 for the age group 15 to 24
- g) The age group is 15 to 19

Source: OECD, Employment Outlook, 1996

ponents as discussed above can be summarised in three points:

- (a) reforming retirement systems to make them more flexible and sustainable;
- (b) age-neutral training and education programmes to raise investment by firms in the human capital of older workers to raise their productivity. This means creating opportunities for lifelong career-oriented learning, career guidance, and individual support and training;
- (c) redistributing work, education and leisure over the entire lifecycle by creating opportunities for career breaks, sabbatical and care leave.

Redesigning the retirement system

Flexibilisation of the life-course should lead to institutional changes in the de-

“Reform of retirement systems seems particularly relevant with respect to the flexibilisation of employment exit routes. A change in retirement policies is needed to keep occupational pensions affordable and sustainable in the future.”



Table 4

Flexible work organisation practices in 10 European countries. Raw probability of having taken an initiative by country (rank between brackets), EPOC survey, 1996

Country	Flattening of management structures	Greater involvement of lower level employees	Installation of team-based work organisation	Job rotation	Aggregated rank (average sum of ranking)
Denmark	44 (3)	10 (9)	43 (1)	24 (2)	(3)
France	20 (6)	40 (4)	26 (5)	6 (8)	(4)
Germany	31 (5)	18 (8)	18 (8)	7 (7)	(7)
Ireland	18 (7)	31 (6)	22 (7)	7 (7)	(6)
Italy	9 (8)	25 (7)	29 (4)	13 (5)	(5)
Netherlands	38 (4)	46 (3)	8 (9)	7 (7)	(4)
Portugal	3 (9)	10 (9)	22 (7)	11 (6)	(8)
Spain	..	35 (5)	40 (2)	17 (3)	(2)
Sweden	41 (2)	58 (1)	24 (6)	34 (1)	(1)
UK	48 (1)	51 (2)	39 (3)	16 (4)	(1)
(N=....)	(4 244)	(4 640)	(4 640)	(4 640)	

Source: OECD, *Employment Outlook 1999* and own calculations

“Preventive age-oriented manpower policies may also enhance the labour productivity of older workers and prevent the ageing-productivity trade-off occurring at a relatively young age. Investment in human capital through education and on-the-job training throughout their working career extends the period during which productivity rises with age.”

sign of retirement systems. Reform of retirement systems seems particularly relevant with respect to the flexibilisation of employment exit routes. A change in retirement policies is needed to keep occupational pensions affordable and sustainable in the future. The defined benefit and final pay schemes in a number of European countries hamper labour market flexibility and hinder workers in accepting less demanding and lower paid employment in the later stages of working life. The pension system therefore constitutes a major barrier to a more flexible organisation of work over working life (Muffels, 1993). Reforms in existing retirement systems are required to enhance flexibility giving more room for a partial (part-time), phased or gradual retreat from working life. At the same time the range of options for retirement should be enlarged with clearer financial incentives for deferring retirement. The changes should guarantee the fine-tuning of the retirement practices to the potential and preferences of employers and employees in each sector.

Changes in human resources policies

Evidence from a number of studies shows the unfavourable labour market position

of older workers on the internal as well as the external labour market. On the internal labour market the perceived mismatch between supply and demand of the skills of older workers means they are the first to be laid off when the firm reduces the workforce. On the external labour market the job mobility of the older worker is low and it is very unlikely they will acquire a new job once laid off. The rising share of flexible jobs restricts the number of permanent jobs and reinforces the exit of the older workers from the labour market since flexible jobs are mostly occupied by young workers. These observations result, on average, in higher tenure and longer unemployment for older workers. Due to the ageing process the position of older workers becomes strongly dependent on the supply of younger labour. If it diminishes, because of falling birth rates that are not compensated by rising immigration flows, the labour market position of older workers will improve given that employment is expected to remain stable.

The ageing of the workforce, all things being equal, may then provide a serious caveat for welfare state policies. As explained above, these expectations result from popular convictions about the po-



tential productivity of older workers. The ageing issue requires a drastic change in firms' manpower policies. The best strategy for them is to invest in lifelong career-oriented manpower policies through investment in education and on-the-job training, personnel support and tailor-made guidance for employees throughout the working career.

Preventive age-oriented manpower policies may also enhance the labour productivity of older workers and prevent the ageing-productivity trade-off occurring at a relatively young age. Investment in human capital through education and on-the-job training throughout their working career extends the period during which productivity rises with age.

Welfare state policies must provide incentives to firms, for example, by stimulating investment in education and training for workers throughout their working career. Welfare state policies must develop policy tools for the redistribution of labour throughout working life, by supporting and initiating arrangements for flexibilisation and individualisation of occupational pension schemes. Policies should aim to provide incentives for deferring retirement and for creating partial or phased retirement opportunities like in Sweden and the United States. Other tools should aim to improve opportunities for men and women to combine working and caring duties. Such policies might include support for innovative flexible working experiments, legislation to create flexible and part-time work opportunities, legislation for compulsory spending on training older workers, and policies to improve access to and exchange of information on innovative human resource management policies.

Redistribution of education, work and leisure over the lifecycle

A further element is the change of welfare state policies from a static to a dynamic, lifecycle approach. Within this perspective welfare states should redistribute economic resources over the lifecycle. This requires a thorough rethinking of the tools the welfare state has or can develop. One useful notion is the "generational contract" (Walker, 1996), which is "socially" defined and modified. This shift is

characterised as the departure from age differentiation to age integration where education, work and leisure occur together and not sequentially. In such a perspective, policies aim to redistribute education, work and leisure over the lifecycle. Welfare state policies aim to create employment opportunities for the underemployed, and education and leisure opportunities for the overemployed. It also means the creation of more opportunities for parental or care and sabbatical leave throughout life. A voucher system is one of many ways by which this lifecycle perspective could be worked out. Education or leisure vouchers, giving people a right to spend time on education or leisure, can be earned through working activities. Work vouchers, giving a right to work, can be earned through education and leisure activities. With respect to ageing and flexibilisation this implies that training and education opportunities will be more equally spread among generations. However, little is known about behavioural responses to voucher systems and their economic effects.

Summarising conclusions and research

Under prevailing conditions where popular beliefs about ageing determine economic behaviour, the perceived negative impact of ageing on productivity, labour costs and job mobility will become a self-fulfilling prophecy and endanger the international competitiveness and performance of European economies. The dominant view is that ageing and flexibilisation are conflicting tendencies and hard to reconcile. This article has shown this rather gloomy view of the impact of ageing on the economy has little empirical evidence and rests on a traditional view on the role of labour market and welfare state policies.

Summarising the findings it appears that, from a demographic view, the process of ageing will lead to increased pressure on the wage balance between older and younger workers. The outcome for individual firms largely depend on their reaction to the changed age composition of the workforce. Either they react traditionally by maintaining defensive ageist employment policies, or in a more posi-

"Under prevailing conditions where popular beliefs about ageing determine economic behaviour, the perceived negative impact of ageing on productivity, labour costs and job mobility will become a self-fulfilling prophecy and endanger the international competitiveness and performance of European economies."

"The outcome for individual firms largely depend on their reaction to the changed age composition of the workforce. Either they react traditionally by maintaining defensive ageist employment policies, or in a more positive way by investment in the human capital of the ageing workforce. (...) These measures will improve productivity and compensate for the rise in wage costs due to the ageing of the workforce."



“(...) European labour markets, because of their traditional and defensive ageist firms’ policies, are more threatened by a generational polarisation than by the polarisation between core and peripheral workers. Given the process of an ageing workforce and the need for flexibilisation, there is a danger that the polarisation between the generations will put a heavy burden on the European economies. Therefore the article argues for age-neutral investments in training and education to create opportunities for lifelong career-oriented learning, career guidance and individual support.”

tive way by investment in the human capital of the ageing workforce. The former approach leads to higher direct and indirect wage costs for younger workers and more expensive employment exit routes for older workers. Consequently, average productivity will decline relative to wages. The latter case implies a redesign and flexibilisation of work organisation practices (workers involvement, team-working and job rotation, flexible working times and flexible, performance-related, pay systems) and flexibilisation of exit routes (partial, flexible and phased retirement). These measures will improve productivity and compensate for the rise in wage costs due to the ageing of the workforce.

From a lifecycle perspective, it is not only ageing or the flexibilisation of working life that matter, but also rising longevity, declining fertility rates, shifts in the gender ratio of labour force participation, dwindling family networks and more general changes in attitudes and lifestyles of workers. The standard lifestyle has disappeared, replaced by a variety of lifestyles which no longer fit the conventional “three boxes of life” image. The age differentiation model no longer conforms to current lifestyle patterns and needs to be changed into an age integration model where education, work and leisure occur together. The borders between education, work and leisure become more blurred and time spent on these activities is more equally spread over the career and lifecycle. A new perspective is needed taking account of the variety in lifestyles. There might be a better distribution of working time, caring obligations and sabbatical leave for prolonged education throughout working life. The flexibilisation of work practices fits well in this new perspective, while work organisation is better equipped to tune the variety of preferences for working, caring and leisure to the requirements of the flexible firm.

Apart from these structural changes in the environment of the firm, the operation of the firm also depends on the institutional setting and institutional constraints derived from legal practices, the operation of the market, and the existence of formal and informal rules. The evidence above suggests there are large cross-coun-

try differences in the existence and evolution of flexible labour and flexible working practices. This points to the existence of institutional factors that might explain the great variation across countries. Despite the great variation, many European labour markets, especially in the south, might be characterised as traditional, increasingly segmented and highly regulated. Evidence suggests that the polarisation between core and peripheral workers may partly be attributed to a highly regulated labour market at least in some European economies. However, the article argues that European labour markets, because of their traditional and defensive ageist firms’ policies, are more threatened by a generational polarisation than by the polarisation between core and peripheral workers. Given the process of an ageing workforce and the need for flexibilisation, there is a danger that the polarisation between the generations will put a heavy burden on the European economies.

Therefore the article argues for age-neutral investments in training and education to create opportunities for lifelong career-oriented learning, career guidance and individual support. In conjunction with the urge for flexibilisation of working practices this should pave the way for a better record of European labour markets. To be successful requires the support of national governments to create or support arrangements aimed at redistributing education, work and leisure over the lifecycle. This could be pursued by new legislation for combining work, education and caring duties and for stimulating age-neutral training and education, fiscal policies to support training initiatives and flexibilisation of work practices, and information policies to broaden the scope for new initiatives. A voucher system has been proposed as an option to guarantee every worker has drawing rights on prolonged education.

In conclusion, the article argues that in a flexible and rapidly changing economy a more fundamental response of firms and welfare states to ageing is needed. The currently perceived ageing-welfare trade-off might only be overcome through a more balanced distribution of work, education and leisure over the lifecycle involving a sort of “generational contract”. This “generational contract” will improve



the balance of costs and returns to ageing. In such a perspective ageing and flexibilisation constitute no caveats but challenges to firms and welfare states of the 21st century.

Empirical research in which the issues of flexibilisation and ageing are linked is currently rather scarce. This area of research is worth exploiting given the challenges posed by both trends for future policies. Both concepts need to be integrated in the research design to investi-

gate the joint effects of ageing and flexibilisation conditioned by changes in the economic and political context at national and international level. It constitutes a major challenge for scientists because little is known about the consequences of a flexible and ageing society for the individual firm, the individual worker and for society. Hopefully, politicians will be better equipped to deal with the challenges of an ageing and flexible society if sound research can prevent them from bad policy responses.

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The workplace of the future: implications for vocational training¹



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Introduction

This article describes the likely features of the workplace of the future and some implications for vocational training systems. The results are based on an analysis of national surveys from the US and Australia on the characteristics of best practice workplaces.

The use of survey data and case studies to identify the characteristics of high performance workplaces is based on the assumption that workplaces doing well in terms of the markets in which they operate are more likely to survive into the future. It is pointless to try to predict the future. But it is possible – and fruitful – to identify major events that have already happened, irrevocably, and that will have predictable effects in the next decade or two. It is possible, in other words, to identify and prepare for the future that has already happened (Drucker, 1997). The focus of this article is on identifying and describing the characteristics of current high performance workplaces as a way of identifying the successful workplaces of the future.

In particular it presents original analysis from the Australian Workplace Industrial Relation Survey (AWIS) carried out in 1995 by the Federal Department of Industrial Relations. The AWIS is a national survey of 2001 workplaces of 20 or more employees. This analysis is complemented by a summary of main findings of four case studies of Australian-based international enterprises.

Key features of high performance workplaces in Australia and the US

Organisation and technological change

A multivariate analysis of the AWIS was conducted to identify the key features associated with workplaces that are high performers.² High performance workplaces were defined as those reporting significant improvements to labour productivity, expanding product demand, or recent capital investment, in the two years previous to the survey. The three groups together accounted for 27% of all workplaces with 20 or more employees.

The analysis identified a number of characteristics associated with workplaces that are performing well. It is useful to consider these in terms of the two levels at which workplaces function: the strategies pursued at the enterprise level and the ways in which work is organised at the workplace level.

The AWIS points to a strong association between recent major organisational change and high performing workplaces. Workplaces that have undergone recent organisational change in terms of restructuring and changes to work for non-managerial employees are twice as likely to be a high performing workplace, all other factors held constant. In Australia, nearly all high-performance workplaces (93%) underwent some form of organisational change in the previous two years to the

An analysis of Australian and US data seeks to identify the likely characteristics of the workplace of the future and consider some of the implications for vocational training.

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The analysis identified a number of characteristics associated with workplaces that are performing well. It is useful to consider these in terms of the two levels at which workplaces function: the strategies pursued at the enterprise level and the ways in which work is organised at the workplace level.

1) This article is based on research undertaken for a report prepared for the State Government of Victoria by the Allen Consulting Group on future employment change issues. The views expressed in this article are entirely those of the author and are not to be taken as those expressed in the report. Some of the data analysis reported here has also been published in "The workplace of the future: insights from future scenarios and today's high performance workplaces", *Australian Bulletin of Labour*, November, 1998

2) The data analysis, based on the specifications of the authors, was carried out by Frances Robertson of NILS with the assistance of Mark Wooden.



“Many ‘visionary’ companies that are highly successful have strong corporate cultures that emphasise adherence to company goals and cohesiveness within the group. While such corporate cultures can improve effort, morale, and productivity, they also tend to thwart innovation by limiting not only the expression of ‘original’ ideas, but even their further development (...).”

survey. This compares to 77% of non-high performance workplaces. A related factor associated with high performance workplaces is recent technological change. This variable was constituted by combining positive responses from workplaces in relation to the purchase in the last two years of major new plant or office equipment.

Flexible working arrangements

High performance workplaces were also associated with flexible working arrangements. They were more likely to have increased their operating hours in the 12 months prior to the survey (26 percent of high performance workplaces compared with 16% of non-high performance workplaces). High performance workplaces are more likely to have shift workers or workers on call (70%) compared with non-high performance workplaces (60%). They were also more likely to be associated with the existence of semi-autonomous work teams.

Emphasis on corporate ethos and investment in human resources

The analysis of the AWIS also shows an association between high performance workplaces and a strong emphasis on corporate ethos/culture and the management of human resources. High performance workplaces are more likely to agree strongly (38%) that “the organisation devotes time to developing a corporate ethic and culture” compared with non-high performance workplaces (29%). Similarly, they are more likely to agree strongly (33%) with the statement that “this organisation currently devotes considerable resources to the management of human resources” compared with non-high performance workplaces (24%).

Good employee management relations

Related to the above findings, there is evidence of a strong association between having good employee management relations and being a high performance workplace. Manager respondents were asked in two different questions to rate employee management relations on a five-point scale from very good to very poor (with a 60% overlap for the same respond-

ents). High performance workplaces are more likely to rate their employee management relations very good (50%) compared with non-high performance workplaces (41%).

Use of key performance indicators

High performance workplaces are more likely to use key performance indicators (60%) compared with non-high performance workplaces (53%). They are more likely to benchmark customer service satisfaction (80%) compared with non-high performance workplaces (72%) and to measure labour productivity regularly at the level of a department or section (54%) compared to non-high performance workplaces (48%). High performance workplaces are also more likely to have key performance indicators designed by employees at the workplace (46%) compared with non-high performance workplaces (36%).

Research on the characteristics of high performance workplaces in Australia offers insights into future trends by extrapolating from emerging structures and processes. However, this method of predicting future workplaces has several limitations.

The AWIS data are from 1994-1995 and so may not capture the information on very recent enterprises. The employment size of the workplaces sampled in the AWIS (20 or more employees) may also exclude new enterprises in the early stages of growth. In addition, the fixed response questionnaires may offer only a partial indication of the changes taking place.

A focus on existing successful enterprises may also only highlight those enterprises that are doing well in today’s markets but may not be successful in different market conditions in the future. Many “visionary” companies that are highly successful have strong corporate cultures that emphasise adherence to company goals and cohesiveness within the group. While such corporate cultures can improve effort, morale, and productivity, they also tend to thwart innovation by limiting not only the expression of “original” ideas, but even their further development (Nemeth 1997). Emerging, more decentralised en-



terprises, not yet defined as successful or high performing, may be more tolerant of internal dissent. These enterprises may be better able to stimulate internal decision making, generate innovation and hence be more likely to thrive in the future (Nemeth op.cit.).

Research in the US

Relatively little information is available from large scale representative survey data on the characteristics of high performance workplaces in the US (Gephart 1995, Smith 1997, Lester 1998), but there are some similar results from the data available. Black and Lynch (1997) use data from a nationally representative sample of more than 1,500 US manufacturing workplaces conducted in 1994 by the US Census Bureau. Their results show that workplaces with higher labour productivity are more likely to have an R & D facility in their enterprise. Similarly, workplaces with non-managerial employees who use computers and who received training are strongly associated with higher labour productivity. Manufacturing plants with profit-sharing plans for non-managerial employees have 7% higher labour productivity than their competitors. Comparison of performance with other workplaces through benchmarking is also a feature of the workplaces with higher labour productivity.

Lynch and Black's analysis also shows that higher workplace productivity is only associated with new forms of work organisation if they are accompanied by increased employee participation. Their results show that unionised plants with traditional manager-worker relations have extremely low productivity. Unionised plants that have adopted new workplace practices such as incentive-based pay systems and employee participation are not only more productive than their old-fashioned unionised peers, but also outperform non-union plants that have adopted similar new workplace practices. Productivity in unionised workplaces that have introduced formal quality programs and forums for regularly discussing issues is 20%. However, the adoption of the same high performance techniques in non-union workplaces only yields a 10% improvement in productivity over the baseline (Wallich 1998).

US evidence also shows that new forms of work organisation are associated with higher productivity performance but only if part of an integrated strategy. A study of 51 steel plants in the US examined the effects of different human resource practices on productivity (Ichniowski, Shaw and Prenzushi 1995). The results show that individual initiatives such as work teams, quality circles and incentive pay schemes do not have much impact on performance. However, when several of these measures are present, the overall effect on productivity is more significant. Thus the impact on performance is greater than the sum of its parts where individual work practices are mutually reinforcing or integrated with each other (Lester 1998).

A study of 62 automotive plants around the world showed "bundles" of high performance human resource practices are associated with higher assembly plant productivity (fewer assembly hours per vehicle produced) and improved quality (MacDuffie 1995). The study also shows that the benefit of these human resource policies is greatest when they are integrated, with a flexible, lean production system (MacDuffie 1995).

The above research based on cross-industry surveys and industry-specific studies in the US suggest several broad conclusions about the characteristics of high performance workplaces (Lester 1998). These generalisations can be summarised as follows:

- ❑ no single set of work practices can be identified as likely to produce high performance outcomes;
- ❑ any single work change initiative is likely to have little impact on productivity if implemented in isolation;
- ❑ combinations of internally consistent changes to work appear to act synergistically, producing effects on productivity that are larger than the sum of the individual work change initiatives;
- ❑ an internally consistent set of work practice changes is most likely to be effective when they are linked to an enterprise's competitive strategy and culture. However, relatively few workplaces in the



Key features of high performance enterprises in response to globalisation

Under strong competitive pressure to find the most effective strategy to reduce costs and maximise future position.

Adoption of world best practices is not merely desirable but a necessity for survival.

New emphasis on need to leverage codified knowledge as a competitive tool.

Growing emphasis on changing tacit knowledge of workforce into codified knowledge through use of quality systems.

Strong need for both workforce functional and numerical flexibility.

Move from maintaining harmonious industrial relations to the adoption of a Human Investment Strategy.

view to identifying, on the basis of practical evidence, the features of the workplace of the future.

The following discussion uses information from four case studies of high performance Australian companies and their response to the global economy. The enterprises studied were an Australian owned international bank, and three US owned international companies in petroleum, car manufacturing, and computer design, manufacturing and sales. Globalisation has several consequences for organisational structures and ways of working (see table).

Emerging global structures

Global operation for the enterprises studied involves transforming production, distribution and human resource systems, for example, to be able to operate from a common platform. New positions are usually established, such as global product managers, and new business units such as a global marketing group. This can involve rationalising product offerings and streamlining processes from sales and customer relationship management to revenue collection.

The move to global operation requires working out how to leverage common best practice processes across regional boundaries while still maintaining some degree of local flavour. A new balancing act may be required to operate common processes globally while managing regional markets locally.

The transition to a global company also requires a major effort to transform employees to perform in the new ways. This effort includes both extensive communications to ensure that people understand why and how they must change and training to equip employees with the knowledge and skills needed to operate at the new level. Employees in global business units need to understand in a comprehensive way the businesses in which they work. They are required to operate in virtual teams with loose managerial oversight. They need to be responsible for their own training and development. Communications, reward and recognition, and measurement systems need to be re-aligned to support global operations.

US are fully committed to major workplace change and improvement.

Based on an extrapolation of the above findings, it is possible to develop an idea of successful workplaces of the future. Organisational structures are likely to be smaller than at present and to operate in a highly autonomous way. They are likely to undergo constant technological and organisational change. This change is likely to be more productive if it closely involves the workforce through various mechanisms to foster participation, including supportive unions. The impetus for change is likely to focus on building a strong sense of cohesion based on agreed goals in the workplace. The careful management of human resources is also likely to be a prominent feature of the successful workplace of the future. Workforce flexibility in terms of both working hours and relations with fellow workers are also likely to be important. Performance measurement particularly in relation to non-financial measures such as customer satisfaction is likely to be a major driver of change.

High performance as a response to globalisation

Moving from the survey evidence, this section looks at what high-performance translates into in practice, again with a



Finding the optimal organisational strategy

The case studies showed clearly that globally managed enterprises are under constant pressure to test which organisational form best suits their strategic goals. These include whether to change from a functional and area-based structure into a global company; "make or buy" (to retain in-house or to outsource); undertake acquisitions to enhance or add to the enterprise's core competences; set up franchise operations; form strategic alliances with other enterprises, or even to merge.

Importance of adopting world best practice

Exchanges of information about best practice took place in each of the enterprises studied. In the case of the oil company, the low cost of transferring information made it possible for a number of network groups to exchange information about their operations. Networking groups existed for refinery operations, refinery maintenance, refinery optimisation, refinery logistics, service station construction and retail marketing. It is recognised that functional expertise is ultimately to be found in the global company. It is expected that, in the future, operational advice from a global network would, for instance, be directly available to a plant operator in a control room.

Leveraging knowledge as a competitive tool

There is a growing recognition within the enterprises studied of the value of intangible assets such as customer and supplier relationships, technical support, R&D, management philosophy, distinctive competences of the enterprise, and operating systems. Leveraging knowledge as a competitive tool is emerging as an important strategy in several enterprises.

The key intangible assets of the computer company were its quality of management, products and services, innovativeness, long-term investment value, financial soundness, and ability to attract and keep talented people. It has been estimated that up to 60% of the computer company's market value was due to these intangible assets.

Importance of quality systems and diversity programmes

The bank, through its organisational change programme, used quality awards criteria to review work processes systematically across the organisation. These include all day-to-day activities, strategies and improvement initiatives. The emphasis was on "the continual improvement of all areas of the business – constantly challenging what is done and the way it is done." This process was backed by an interlocking team structure to provide a system for coaching, communicating and linking decision-making throughout the organisation.

The car company, internationally, had its own quality programme, aimed at turning it into a globally managed company focused on quality.

The computer company and the oil company had programmes aimed at maximising the potential of all employees to contribute to business success. The goals of the oil company programme were to have a workforce fully aligned to the company's business outcomes feeling able to contribute fully towards the oil company becoming number one, a workforce that recognised and valued a variety of work styles and approaches and was continually able to develop skills and competences.

Importance of workforce flexibility

Workforce flexibility, both functional and numerical, is a major theme for all the enterprises studied. The computer company required a high degree of flexibility in terms of employment arrangements for 30% of its workforce. It also expected flexible working arrangements through telecommuting by working from clients' premises. Some 40% of all computer company employees in Australia have laptops. Weekend work was also expected. Functional flexibility was also highly sought after not only technical skills, but also strong communication and team work competences.

Adoption of a human investment strategy

The four enterprises studied shifted from a narrow industrial relations focus to a

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“The four enterprises studied shifted from a narrow industrial relations focus to a more comprehensive range of human resource policies. In some cases, this progressed to the adoption of a human resource investment strategy as a core element in the corporate strategy. This involved a shift in workforce attitudes from an “entitlements” culture to a greater acceptance of responsibilities. These changes also involved a shift away from narrow task-oriented jobs to work that is more comprehensive and judged on the basis of outcomes.”

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Enterprises with a highly unionised workforce changed the conduct of industrial relations. This involved changing from working through external parties and its narrow focus on wages and conditions, to an enterprise focus with productivity and performance benchmarks of prime concern. Most initiatives have been implemented to foster greater diversity in the workforce, such as more family friendly policies and language training.

This new enterprise focus emphasised the development of teams and empowering individual team workers. The aim is a human investment strategy for the whole workforce. This entailed encouraging teams to manage their areas like a small business, solving problems, making decisions and being accountable for outcomes. In the car company studied, some 1,300 employees were given the opportunity to acquire a better understanding of business principles by undertaking “business acumen and business leadership” training.

In addition, in the car company considerable energy had been devoted to developing a broadly based and robust career development programme for the white-collar workforce. Many in the manufacturing workforce attended accredited training partly in their own time. It is planned to extend current practices for the white-collar workforce to the manufacturing workforce. This applies to performance appraisal and the undertaking of training and development activities. Managers and supervisors will increasingly be required to take responsibility for their own training and development.

In the oil company’s refinery, management layers were reduced from 6 to 3;

greater accountability for outcomes passed to team leaders and teams. Team leaders are expected to have high quality communication and interpersonal skills and all employees are encouraged to be “self-energised”.

The computer company adopted a comprehensive human investment strategy. This may reflect the high proportion of tertiary graduates employed by the company and its tradition of valuing its engineering expertise. They placed a strong emphasis on career self-reliance. It selected and managed businesses with a goal of providing long-term employment and opportunities for personal growth and development. In return, people were expected to take initiative by managing their careers proactively, learning new skills and applying them to meet critical business needs. This included meeting and exceeding certain standards on the job, while adjusting to changes in assignments, schedules and the work environment.

Overview of high performance enterprises

The evidence from the surveys, reported above, offers, in a somewhat disconnected way, some pointers to the characteristics of high performance workplaces in the US and Australia. These pointers can be used to extrapolate current trends for the future. They suggest organisational structures are likely to operate in a more autonomous way than past practice. Successful workplaces of the future will seek to combine efforts to develop new products and services with innovative work organisation. The result is likely to be workplaces undergoing constant technological and organisational change.

US evidence suggests that this change is likely to be more productive if it closely involves the workforce through various mechanisms to foster participation, including supportive unions. Development of a strong corporate culture based on agreed goals will be another common feature.

The focus on individual employees as vehicles for investment to foster intellectual capital will be a prominent feature



of the future successful workplace. This is not to suggest that the workplace will be all sweetness and light. Workforce flexibility will be an important feature. This will require working at times that best meet the needs of customers. A high degree of inter-personal flexibility is likely to be also necessary. This may involve working in teams responsible for setting their own performance targets. Non-financial key performance indicators, particularly in relation to customer satisfaction, are likely to play a major role in shaping the day-to-day work focus.

The case studies offer a more comprehensive, holistic picture of what high performance looks like in practice. The evidence presented above of recent changes in response to the growth of the global knowledge economy highlights a number of likely key features of the workplace of the future. The most significant factor influencing the direction and structure of the large enterprises is the new structures being put in place to assist the move to globally based operations.

Associated with the exposure to global competition is the search by enterprises to find the best fit between organisational structure and the demands of the market in which the business unit is operating. Adoption of best practice in these circumstances becomes a necessity, not just a rhetorical expression of intention. Diverse organisational structures are likely to emerge to respond to a rapidly changing and diversified set of market conditions. However, a common feature of these new structures is likely to be much greater operating autonomy than has been past practice.

A key way in which enterprises, both large and small, are responding to operating in a global marketplace is to leverage knowledge as a competitive tool. The effect of operating in the global knowledge economy on the working lives of an enterprise's employees is significant. A high degree of workforce flexibility is expected. However, this has to be understood in the context of the primacy given by enterprises in this new operating environment to fostering their intellectual capital through a human investment strategy that encourages employees to manage their own career.

Implications for vocational training systems

Changes in the organisation of work are having a dramatic effect on vocational education in industrialised countries. The new knowledge-intensive economy poses challenges for systems previously seen as highly successful. Employment is becoming increasingly fluid, with occupational boundaries changing or dissolving. Organisations are seeking to promote learning and at the same time reduce the cost of training through "on-line learning" (Stern 1998).

In many ways, the new knowledge economy is built on a shift in organisations away from top-down hierarchical structures to flatter structures such as networks and autonomous teams. Top-down hierarchies are particularly suited to producing or providing standardised goods and services. Knowledge production requires looser forms of organisation that give greater recognition to personal autonomy and self-direction of the mind (Stiglitz 1998). Knowledge is best acquired through the active involvement of the learner and not through passive rote memorisation. Within enterprises, there is a strong emphasis on independence and teamwork, away from working conditions based on independence and autonomy. Cross-functional communication and co-ordination is increasingly seen as a crucial requirement of people working in ever more specialised work teams.

Central command structures give way to semi-autonomous teams horizontally co-ordinating according to centrally given rules. Work organised according to the externally determined "one best way" is replaced by participative experimentation leading to continuous improvement. Within the firm, the transfer of localised tacit knowledge takes place mainly through horizontal apprentice-like relations, not vertical training from managers to workers (Stiglitz, 1999).

The trend has profound implications for vocational training systems. Decentralised decision-making, involving, in particular, employers and employees as the end users of the training are likely to be a major feature of training systems in the future.



“Two types of flexibility are likely to be required of the vocational training system of the future (...). One can be termed context flexibility and the other temporal flexibility.”

“Context flexibility refers to the need for training providers to arrange for learning to take place in a range of contexts.”

Temporal [flexibility] “(...) refers to the flexibility in times, venue and format that will be needed to meet the requirements of an increasingly diverse group of users.”

Two types of flexibility are likely to be required of the vocational training system of the future (Sweet and Curtain, 1999). One can be termed context flexibility and the other temporal flexibility.

Learning is best acquired when “situated” or carried out in context. Context flexibility refers to the need for training providers to arrange for learning to take place in a range of contexts. The importance of the strategic use of knowledge to the workplace of the future means that greater efforts will be made to capture the tacit knowledge in people’s heads. Some of this will to be transferred to procedures such as a quality system. In other cases, it will be tapped through intensive teamwork. The central importance of tacit knowledge will mean that most learning will take place less from first principles in a deductive fashion in a classroom. The workplace itself, particularly where it is knowledge intensive work, will provide the best setting for learning.

Work-based learning offers a range of benefits to educationalists and enterprises. Three sets of benefits of close teacher-employer links can be identified. First, employers can demonstrate to students the skills needed in the workplace and hence reinforce in students the value of a relevant education. Second, students are likely to exert more effort once they return to the classroom because they have a better appreciation of how classroom performance is relevant to their future careers. And third, teaching staff accrue additional authority based on their close association with employers. However, realisation of these benefits depends on employers playing an active role in the specification of relevant competences to be acquired during a work placement and in their assessment.

Unsatisfactory learning conditions in the workplace may be due to an absence of appropriately trained mentors. It may also be due to bad work practices, such as scapegoating or victimising of appren-

tices. For a work placement to be a beneficial experience for the student, it needs to be carefully planned and monitored by people who understand both the work setting and what is to be learned there. Work placement co-ordinators may need a close rapport with employers to encourage employers to devote the resources needed to mentor students in the workplace. Co-ordinators, therefore, may need to be sourced directly from industry and be located in bodies with high credibility with employers such as an employer association.

The second major form of flexibility that will be important to vocational training in the future is temporal. This refers to the flexibility in times, venue and format that will be needed to meet the requirements of an increasingly diverse group of users. Many young people in particular are now likely to construct their own pathway by negotiating a series of steps that includes work and further education. However, the choices of young people are not likely to be in a linear sequence. Modes and times of delivery will need to accommodate a clientele that will increasingly want to exercise their full range of options, particularly in relation to different combinations of work and study.

Vocational training providers will need to move from a course-based model with its set hours of training delivery to one more firmly focused on the needs of the individual. The issue is how best to match individual choices to education structures to make a greater range of career choices and aspirations possible.

Vocational training providers will need to encourage more individualised approaches to learning. This will involve greater use of recognition of prior learning to give credit for informal learning. The use of individual learning plans is one mechanism to facilitate individual negotiation of their own learning pathways.



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Knowledge dynamics, communities of practice: emerging perspectives on training¹

The basic assumption of this article is training activities are evolving in connection with the needs of the knowledge society and the greater emphasis on the requirements of employed adults. Alongside the traditional training paradigm based on teaching and mostly referring to formal qualification needs a new learning-based paradigm is taking shape, referring to real competence needs. This is the paradigm which embraces continuing training addressed to people working in enterprises and complex organisations.

Introduction

The need for a close integration of theoretical knowledge with practical experience in work activities is fully recognised among experts and practitioners in the field of training. Considering learning as the acquisition of practical and theoretical knowledge is part of the genetic inheritance of training. It originates from apprenticeship in which, by definition, the two aspects develop together in an inseparable relationship. And yet the paradigm that the most widespread training practices are based on does not fully satisfy this need of integration between theory and practice, for a number of reasons.

The social and institutional requirements of training have overtaken the functions more closely related to production needs. Nowadays, it is equally – if not more important – to ensure that competences acquired through training are legally valid on the labour market than to actually create them in response to the needs they are expected to fulfil. The basic purpose of much of the training currently provided in Western societies, and especially in Europe, is to certify precisely and in a socially recognised manner the possession of certain skills, in the sense of levels of qualification. This qualification must be achieved by means of formalised training paths, in which the relationship with work practice may indeed play a large role but is nonetheless secondary to achieving objectives established by law and/or with the mediation of parties representing general interests (for example the social partners). These training paths are basically the same as those of school and, although alternation between theory and practice

takes place in certain cases, the underlying concept is always of the kind: “first you learn, then you do”.

This paradigm safeguards major requirements of stability in the use of labour resources, namely the needs of:

- workers (for whom recognition of their value on the labour market is ensured); and
- enterprises – and other organisations producing goods and services (which can acquire the skills they need without having to resort to costly, and in practice unmanageable, selection and internal training of each labour unit to be inserted in their processes).

Therefore, it is an irreplaceable paradigm for the operation of the labour market and one that has attained high levels of efficiency and social consensus in several contexts (for example the dual-system). However, it is based on an exchange value of competences and does not fulfil needs relating to their use value.

The use value of competences is actually related to their efficiency and is most directly affected by the changes taking place in production processes and systems of organisation. At this level, attention is beginning to shift from the regularity of work performances (organised within well-defined jobs and stable qualifications) to their usefulness in connection with quality and competitiveness. Whether the work is performed by groups, individuals, part-time staff or workers not organised according to qualifications, is subject to continuous transformation. Therefore a new paradigm of training is being established: many training activities tend

1) This article is a shortened version of a paper for the EU Seminar “Knowledge production and dissemination to business and the labour market” (Goote Institute, University of Amsterdam, 23-24 April 1997)



to refer not to formal qualifications, but to real competence needs. Indeed, it should be considered that training:

□ is an activity involving, more and more, people employed for the first time. These are not only young people. Given demographic change and production needs, they include adults already employed and affected by continuous organisational and technological evolution and to whom many of the principles of traditional training do not apply. For adults in particular, the principle “first you learn, then you do”, which underpins the traditional training paradigm, has a very limited sphere of application;

□ must integrate forms of production and organisation for which the principle “first you learn, then you do” is extremely contradictory. The fundamental characteristic of current production processes in all sectors is that they are highly dynamic and innovative. They require working, learning and innovation to proceed in parallel. The learning of work methods and techniques must proceed hand in hand with innovation. They must accompany and create it through competent use of different kinds of knowledge. A more specifically structural aspect, which the new schools of enterprise economics increasingly emphasise as crucial, is the relationship between knowledge and production. In existing production processes, knowledge is the fundamental resource of those processes. At all levels, except in economically marginal areas of manual work, competences manifest themselves in terms of transformation of knowledge. Moreover, the acquisition of core knowledge-competences is the true source of competitive advantage;

□ acquires a strategic role not only in production, but also in social development on which societal growth and the quality of life depend, as is the case of public services and, more generally, of public administration. Here too, innovation based on competent use of knowledge and its circulation should be unceasing, considering the demand for services of increasing value and complexity at lower costs.

Basically, the traditional paradigm of training, based on teaching and largely bor-

rowed from the school system, is still a valid institutional guarantee of competences for young people and the social support of disadvantaged groups on the labour market, which have greater difficulty in keeping pace with change in the knowledge society. On the other hand, this model is inadequate for areas of work more closely involved in innovative processes, namely the field of activity usually termed continuing training, which is necessarily linked to the development of learning at all levels.

While the traditional paradigm, based on teaching, is structurally stable (even if it obviously needs continuous updating and improvements in methods and content), the innovative paradigm, geared to learning, is in constant transformation. In many respects, continuing training is in danger of losing its “institutional identity” since it is increasingly expected to integrate with organisational innovation and development activities, of which the more typical training aspects (lessons and other classroom-based activities) represent only a part.

Experience in recent years has shown that in the field of continuing training there is constant innovation in methods and even of objectives to be pursued. As a result, there is the problem of redesigning and maintaining the field in ways (trainers, managers of enterprises and other complex organisations, social partners, national and EU decision-makers) that reflect the activities and roles of the various parties involved.

This article attempts to contribute to this by focusing on some approaches that could make a significant contribution to the new learning-based paradigm and to policies for its development. More specifically, given that training is a function that has much to do with the dynamics of knowledge in organisations, how can those dynamics be identified? What are the basic characteristics of continuing training in the knowledge society? Furthermore, given that objectives and methods differ between initial training (based on the teaching paradigm) and continuing training (governed by the learning paradigm), can new approaches to continuing training find some application in the context of initial training? Some con-

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“(...) Training is a function that not only serves to transfer knowledge (from someone possessing it to someone who does not). It is a more complex function in which knowledge transfer is strictly linked to facilitating knowledge transformation processes, in which knowledge itself has different aspects and meanings.”

clusions are sketched, including possible lines of research to be encouraged within the framework of EU policies in this field.

Knowledge dynamics

Training problems can be interpreted in a framework conceptually more relevant to the current economic and social situation, if it is assumed that training activities are ones of continuous knowledge transformation and directly linked to knowledge as the fundamental resource of our times. “Knowledge is not another resource that is developed alongside the traditional factors of production – labour, capital and land – but the only meaningful resource today: knowledge is not a resource, but the resource that makes the new society unique” (Drucker, 1993). From this viewpoint, training is a function that not only serves to transfer knowledge (from someone possessing it to someone who does not). It is a more complex function in which knowledge transfer is strictly linked to facilitating knowledge transformation processes, in which knowledge itself has different aspects and meanings.

Knowledge transformation affects simultaneously different dimensions of knowledge, for instance those distinguished in relation to both individuals and organisations in terms of (Ludvall and Johnson, 1994):

- know-what – which refers to knowledge about “facts”, equivalent to what is normally called information and/or related to the body of knowledge that each category of experts must possess;
- know-why – related to scientific knowledge, influencing technological development, its pace and the characteristics of its application;
- know-how – related to technical skills, the capability to act competently in a specific context (for example judging the prospects for a new product, operating a machine-tool, etc.). Know-how is typically a kind of knowledge developed by individuals. But its importance is evident if one considers the division of labour and cooperation factors within and between organisations (for instance, the creation

of industrial networks is largely due to the need for firms to be able to share and combine elements of know-how);

- know-who – another kind of knowledge which is becoming increasingly important, referring to the social skills, allowing access to, and use of, knowledge possessed by somebody else.

How are these kinds of knowledge interconnected? What makes them productive? A major contribution to answering these questions comes the theory of the “knowledge-creating company” (Nonaka, 1991; Nonaka and Takeuchi, 1995). This theory is explicitly intended to provide conceptual support for the development of management models capable of running complex and highly innovative enterprises wishing to emulate the behaviour of Japanese corporations at the height of their success. The theory, which combines both Eastern and Western models of thought and suggestions, seeks to fulfil the need for a new theoretical framework as the basis of new management practice in enterprises.

Nonaka’s framework is based on the assumption that knowledge in organisations, especially in the most innovative enterprises, is created through the interaction between tacit and explicit knowledge, continuously “converting” one into the other. The model postulates four different modes of knowledge conversion called:

- socialisation (tacit knowledge converting into other tacit knowledge),
- externalisation (conceived as the passage from tacit knowledge to explicit knowledge),
- combination (of different pieces of explicit knowledge), and
- internalisation (the passage from explicit knowledge to tacit knowledge).

Each is considered below.

Socialisation

Socialisation is a process of sharing experience and thereby creating tacit knowledge embedded in shared mental mod-



els and in technical and social skills. This is, for instance, the case in apprenticeship, in which tacit knowledge directly derives from the master – through language, observation, imitation and practice – and is converted into tacit knowledge by the apprentice. It is a process which cannot be abstracted from associated emotions and specific contexts in which shared experiences are embedded. Japanese companies provide other examples of knowledge socialisation, like the “brainstorming camps” aimed at creating good settings for the development of new products, managerial systems and corporate strategies. In this kind of meeting knowledge is socialised through creative dialogue and the enhancement of mutual trust among participants.

Externalisation

Externalisation is the process of expressing tacit knowledge into explicit concepts. It is generally based on metaphors, analogies, hypotheses, images or models from which new ideas and products can be generated through interaction between individuals wanting the same outcome. It is a process which takes place in concept creation combining different reasoning methods (deduction and induction). In the case of the design of a new automobile, for example, the corporate slogans (such as create new values and give driving pleasure) played an important role as well as the “concept clinics”, which gathered opinions from customers and car experts. Externalisation can often be derived from non-analytical methods based on metaphors and analogies. Another example of support to collective thinking for the design of a new car is the “automobile evolution” metaphor that allowed the automobile to be viewed as an organism.

Combination

Combination is a process of systematising concepts into a knowledge system, combining different bodies of explicit knowledge. The media for this purpose can be very different (documents, meetings, telephone conversations, computerised databases, etc.). Reconfiguration of existing information through sorting, adding, combining and categorising of explicit knowledge can in fact lead to new knowledge. An example is the use of data from

the “point-of-sales” system of retailers, which can be used not only to find out what sells but also to create new “ways to sell”, that is, new sales systems and methods. Middle management plays a critical role in creating new concepts through networking of codified information and knowledge. Creative uses of computerised communication networks and large-scale databases facilitate this type of knowledge conversion.

Internalisation

Internalisation is the process of embodying explicit knowledge as tacit knowledge. It is closely related to learning by doing and is the sum of experiences gained by individuals through socialisation, externalisation and combination which become individuals’ tacit knowledge bases in the form of shared mental models or technical know-how. But internalisation can be achieved through other forms. Reading or listening to success stories can induce new levels of tacit knowledge in the members of an organisation and the establishment of new shared mental models within the organisational culture.

In Nonaka’s model the four modes of knowledge conversion are structurally interconnected. Different events of organisational life can be seen from the viewpoint of each of these modes in the processes of knowledge creation. Tacit knowledge of individuals is the basis of knowledge creation “organisationally” amplified through the four modes of knowledge conversion. Nonaka defines this process as the “knowledge spiral”, in which the interaction between tacit and explicit knowledge becomes larger in scale as the relationships between the four modes are continuously increased and managed.

In this perspective, organisational knowledge creation (which could be considered a subtler way of viewing what in other approaches is called organisational learning) is a spiral, starting at the individual level and moving up through expanding communities of interaction, crossing internal and even external boundaries of the organisation.

In Nonaka’s approach, knowledge “conversion” processes can be fostered prin-



“(...) The ‘communities of practice’ approach provides several interesting clues to be developed in the debate on training. (...) In general, [it] can be defined as the organisational informal aggregation in which ‘united by a common enterprise, people come to develop and share ways of doing things, ways of talking, beliefs, values – in short, practice – as a function of their joint involvement in mutual activity.’”

cially by means of continuous managerial action coherent with the features and conditions of the “spiral” and having the middle managers as main protagonists. Their basic objective, according to an approach termed as “middle-up-down”, is to mediate between the “visions” of senior management and the creative skills spread throughout the organisation, between the top-down and bottom-up approaches. In this perspective, there is no separation between learning and knowledge creation: everything must converge to provide the proper context for facilitating group activities as well as the creation and accumulation of knowledge at the individual level.

Communities of practice

The functioning of the knowledge spiral cannot be attained through simple mechanical management intervention. It requires appropriate cultural backgrounds, the existence of shared meanings, common bases for interpreting and understanding “who we are, where we have to go” in a specific organisation. The “communities of practice” approach provides several interesting clues to be developed in the debate on training. Community of practice is not a specific theory, but a set of concepts first developed in the early 1990s. It developed around the idea of a close correlation between the modes of creating and maintaining individuals’ participation in work, on the one hand, and the forms that participation takes depending on the social and cultural nature of work context, on the other. Here again, knowledge plays a crucial role, but as a resource “situated” in its context and characterised by complex creation and reproduction dynamics that keep it in a state of continuous transformation.

In general, community of practice can be defined as the organisational informal aggregation in which “united by a common enterprise, people come to develop and share ways of doing things, ways of talking, beliefs, values – in short, practice – as a function of their joint involvement in mutual activity”. The communities of practice are identified “not only by their membership, but by shared ways of doing things” (IRL, 1993). From this point of view, learning is not just the activity of an individual but the primary en-

agement with others. The key to enhancement and motivation in learning lies in the intimate connection of the desire for participation and the role of knowledge in enabling it.

Working, learning and innovating, from this point of view, are all activities based on knowledge transformation, in the sense that it is the continuous circulation and use of the knowledge the organisation possesses and the creation of new knowledge in response to innovation needs. Explicit knowledge and tacit knowledge mutually synergize in the work context to achieve a dynamic balance between “know-what” (the theoretical level) and “know-how” (the practical level) without either one or the other being dominant: because of their close interdependence the “co-production” of theoretical knowledge and practical knowledge takes place (Seely Brown et al., 1989).

The idea of knowledge as a direct reflection of what one perceives in the physical world is strongly criticised in the community of practice approach. The most relevant part of knowledge is seen in terms of interpretation of experience, based on idiosyncratic frameworks that at the same time favour and limit individual processes of sense-making (Resnick, 1993). Much importance is placed on the context of knowledge, or rather the situation in which cognitive acts take place. Situated cognition is the driving idea of this approach. It recognises that individuals are very sensitive to their cultural context which provides a complex fabric of references that, in the long run, shape an individual’s knowledge and determine a social construction of knowledge.

A number of empirical research studies have fuelled this type of hypothesis with evidence of undoubted importance. For example, an anthropological analysis of work behaviour in a community of practice of photocopying machine maintenance workers (Orr, 1993), emphasises the social nature of the working knowledge. Over time, the maintenance workers develop highly specific forms of interaction and methods of problem-solving. The defects they have to deal with are often very different from anything envisaged in the official manuals issued by the manu-



facturers. As a result, definitions and solutions to problems are created collectively using the experience of each member of the group. Various forms of communication, including informal chatting, sometimes outside work, play an important role in this connection. They form a basis of “stories” (not without some element of legend, Orr calls them “war stories”). These stories summarise collective diagnoses and maintain the social context of the workplace thereby enabling current interpretations to interact with those evolved in the past out of similar episodes and situations experienced by different members of the company. As they are integrated with learning by the customer, these “stories” provide the technicians with real problem-solving repertoires that can be continuously altered and updated.

Working activities in the communities of practice are constituted by continuous intertwining of three essential factors:

- narration, allowing the creation and exchange of stories through which the stock of experience gained with informal practice is maintained and valorised;
- collaboration, helping people to participate in collective flows of situated knowledge; and
- social construction, through which professional identities are constituted, both at the individual and collective level.

An aspect of this approach which is particularly relevant from the viewpoint of training development, concerns how communities of practice are accessed by newcomers. How does one join a community? How does a novice become a fully fledged member? The concept proposed in this regard is “legitimate peripheral participation” (Lave Wenger, 1991; Pontecorvo et al., 1995; Zuccheromaglio, 1996) which means the path the novice must follow to gain expert skills and recognised status of “old-timer” in the organisation. In this path learning is only partly of a direct and declarative kind. Usually newcomers learn not by taking part directly in a particular activity, but by maintaining their legitimate position on the periphery of the organisation. This kind of participation is important for new people entering the cultural context. They need to observe

how practitioners at various levels behave and talk to get a sense of how expertise is manifest in conversations and other activities (Seely Brown et al., 1989). The “cognitive apprenticeship” of newcomers is based on a complex learning process which can be defined as collaborative learning, or group learning, considering the crucial role of the collective dimension as far as the progress in participation of work practice is concerned.

Through this kind of process, newcomers develop a changing understanding of practice over time from improvised opportunities to participate peripherally in ongoing activities of the community. Knowledge skill is encompassed in the process of assuming an identity as a practitioner, of becoming a full participant – an “old-timer”. Thus, the dynamics of legitimate peripheral participation show that communities of practice are based on continuous knowledge transformation processes governing essential elements such as learning, social interaction, and the collective interpretation of situations. From the viewpoint of training, the problem is to plan interventions scaled according to these knowledge transformation dynamics and which are capable of supporting and developing them.

Perspectives for the development of training

Approaches such as the knowledge-creating company and communities of practice help to establish the learning paradigm as a necessary step forward from the teaching paradigm in the training of employees. The way organisational dynamics are explained in the knowledge-creating company approach is very much geared to satisfying management needs, especially as far as management of groups and teams is concerned. The communities of practice approach is, in some respects, an extension of the first and focuses on the internal functioning of the groups, as communities in which important socio-cognitive mechanisms operate.

Both have several interfaces with other approaches recently developed to interpret the dynamics of organisations, bringing the debate back to the role and ob-



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jectives of training. The idea of the learning organisation shares many features with the approaches described above and has become popular among managers and experts; it has prompted much reflection among training practitioners about the role of training in facilitating learning in organisations rather than as a simple transfer of knowledge (Tomassini, 1993, 1996).

Both provide interesting references for innovative training actions within the learning paradigm at different levels.

A first level concerns the definition of coherent objectives for training activities, which are linked in a non-generic way to organisational development requirements and can foster direct involvement of those involved. For example, in enterprises undergoing technological change, training managers often think it sufficient to create programmes only for those directly engaged to learn principles and operational procedures of the new technologies. In doing so the results do not always match expectations. Technological innovation produces unexpected consequences and very different adaptation and integration requirements than the linear application of technical standards. Taking into account knowledge transformation processes should help, in such cases, by identifying the most critical aspects of change with the aid of those involved especially at the line-management level. It can also help in assessing the meaning of the decisions that led to the innovation, in analysing the flows of tacit and explicit knowledge through the organisation, in seeing how the communities of practice affected by the innovation can rebuild their modes of operation in terms of learning, interpreting situations, co-opting newcomers.

This should be the premise for planning training interventions inside the organisational scenario: those involved should not acquire “training” more or less passively, but be required to formulate proposals and solutions, point out constraints, learn and re-interpret situations collectively and, at the same time, acquire the specific technical skills needed to master the innovation.

Taking into account knowledge conversion processes should also help choices

for appropriate training methodologies. A vast range of tools and techniques are available for new types of continuing training, which, for example, might be grouped into tools and techniques:

□ to develop new understanding of current phenomena and induce more realistic decision patterns. Interesting examples are techniques to simulate different variables and states of the organisation such as “micro-worlds” developed by the Centre for Organisational Learning (Senge, 1991, 1994) and now available for large audiences on specific software tools simulating the specific realities in which the parties operate;

□ to increase the skills which, in Nonaka’s approach, allow the knowledge-creating company to grow through the autonomy of individuals, teamwork and using the creativeness of both. For this purpose, various forms of action learning are available, techniques that involve teams in controlled and self-reflective solving of real firm problems and encourage the integration of explicit and tacit knowledge, shared interpretations of situations, and collaboration within the community. Other more traditional techniques, such as role-playing, can familiarise people with the behaviour of different roles and encourage the development of skills for responding to turbulent external environments by reproducing their complexity within the teams. A number of tools (such as “Metaplan”) can be used to increase both vision sharing among members of the same or different teams and role synergies from an inter-functional viewpoint;

□ for distance learning and self-learning, designed for autonomous acquisition of knowledge useful for work activity from a wide variety of sources outside the workplace. This area is receiving considerable stimulus from the growing use of the Internet and application software enabling users to interact in computer-mediated communication systems. Self-learning is an essential element of continuing training, but to be effective it must be coordinated and optimised with appropriate methods and forms of coaching;

□ in the area of organisational analysis. As mentioned earlier, often the most appropriate training intervention is not the



one in which the actual organisation is taken for granted, but the one in which self-definition and on-going self-evaluation of the intervention paths are set in motion.

By means of these processes, the organisational actors should be able to fulfil their own needs themselves as far as possible and find missing knowledge when necessary by using experts, information systems or databases or other sources. In several action research and action learning approaches, the tendency is to involve several levels of the organisation in the far-reaching and long-term objectives of change. The basic idea is that multi-polar learning processes can be set in motion. They can lead groups in organisations to share background values, content, methods and solutions for change by means of guided sessions of organisational self-analysis and internal-external communication (Di Gregorio, 1995, 1996).

To set these processes in motion, specific skills for organisational analysis are necessary, which the new types of trainers need to possess on a large scale. In general, the brief considerations made above should show how necessary it is to raise new generations of continuing training operators according to approaches which are as innovative as possible with respect to the teaching paradigm. The emerging profiles in the field of training integrate pedagogical skills with organisational development skills and the ability to trigger complex interventions. In many ways the gap should be abolished between trainer and activator of new organisational processes, both of whom are agents of change. Furthermore, the gap should be reduced between training and co-ordination roles within the working groups and teams. In innovative organisations, coordinators have fewer hierarchical features and increasingly provide stimulus and support to collective processes through coaching.

For trainers wishing to keep in step with change, continuous innovation is necessary, but it is impossible for each to specialise in the whole (and virtually infinite) range of available approaches and tools. Consequently, training of trainers should focus not on updating and qualification/re-training of professional profiles in series, but as far as possible on creating

inter-functional teams and optimising methods of operation of the communities of practice type. The teams should develop internally a multitude of specialised roles to cope with the complexity of the assigned tasks; they should be able, when necessary, to integrate external knowledge, particularly as regards technical aspects of training, which should be entrusted to experts engaged on an ad hoc basis according to requirements.

Concluding remarks and emerging lines for research activities on training

The basic assumption of this article is that training activities are evolving in connection with the needs of the knowledge society and the greater emphasis on the requirements of employed adults. Alongside the traditional training paradigm based on teaching and mostly referring to formal qualification needs a new learning-based paradigm is taking shape, referring to real competence needs. This is the paradigm which embraces continuing training addressed to people working in enterprises and complex organisations.

The development of this new paradigm, in which the principle "first you learn, then you do" has a very limited sphere of application, gains considerable theoretical support from approaches and concepts formulated in different and very diverse disciplines. The point of contact between these concepts and approaches is that training activities support on-going knowledge-transformation processes.

In this perspective, training not only serves to transfer knowledge (from someone possessing it to someone who does not), but also has as its main purpose facilitating knowledge-conversion.

This article refers to two approaches concerning knowledge transformation: the first, developed in a management context, focuses on the relationship between explicit knowledge and tacit knowledge within the knowledge-creating company; the second, conceived by psychologists and anthropologists interested in the social dynamics of knowledge, is related to

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“In continuing training, the focus on knowledge-transformation processes should be the premise for planning training actions to be performed with the participation of all those involved.”

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the communities of practice in the most common job contexts.

Both these approaches – which are not extensive – provide conceptual bases for the objectives of the quality, flexibility and cooperation sought by innovative training activities.

In continuing training, the focus on knowledge-transformation processes should be the premise for planning training actions to be performed with the participation of all those involved. They should not undergo “training” more or less passively, but formulate proposals and solutions, point out constraints, learn and re-interpret situations collectively. A large number of tools and techniques is available, including those for decision abilities development, for operating in autonomous working groups, supporting self-learning, and carrying out training interventions based on organisational analyses directly involving those concerned.

Yet focus on knowledge-transformation processes could be also the basis for the new approaches in the field of initial training. Evolution in continuing training can have a driving effect on initial training as well. In that area it is no longer sufficient to assume that so-called core skills or key competences are crucial, it is necessary to develop models geared to new forms of apprenticeship based on group learning (as in the “co-operative learning” approach: Johnson et al., 1993).

From the viewpoint of both continuing and initial training, it is likely that knowledge-transformation will imply a far-reaching reform of the way training objectives are formulated, intervention is made and trainers are trained.

The training of trainers should seek not only to qualify/re-train individual professional profiles, but also, as far as possible create inter-functional training teams conceived as communities of practice holding different competences but united by common goals and values. The teams-communities should develop internally a multitude of roles and specialisations appropriate for the assigned tasks. They

should be capable, when necessary, of integrating external knowledge, especially with regard to the technical aspects of the training and intervention paths to be entrusted to experts engaged ad hoc according to requirements.

This outline is very schematic and needs to be improved in various areas. New research activities might, therefore, give more consideration to issues such as:

□ analysis of examples of excellence and good practice. Reference has to be made to cases of new training experience consistent with the learning paradigm. These analyses could provide useful benchmarking references for the training field on a European scale;

□ experimentation with innovative research methodologies examining work context (for instance, based on the ethnographic approaches which underlie much of the research on communities of practice);

□ closer contacts among trainers at European level. This aspect is essential in the light of experience of past programmes. Creating networks of trainers, especially among the cases of excellence, should be a priority, also in view of the suggestions contained in the European Commission white paper “Teaching and learning: towards the learning society”, which states that “no institution alone, not even a school or enterprise, can expect to develop the skills necessary for work” (European Commission, 1995).

The hypothesis on which work should be based is that among the various communities of practice in the field of highest quality training it would be possible to create networks of co-operation and knowledge exchange which would be useful not only to the communities themselves, but to the systems as a whole. This type of network on a European scale can support, among others, the emergence of a new way of considering the training of trainers, not only in terms of updating but also of dissemination of the best training practice consistent with the emerging learning paradigm.



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Types of vocational training and their use

This article deals with the various types of vocational training - regulated, occupational, continuing and work-based - in Spain. It analyses responses received from a sample of those who had undergone vocational training in its various forms and goes on to analyse different perceptions of the usefulness of the training received according to the persons' sex, occupational group, performance and degree of satisfaction. The trainees in the survey distinguish clearly between the various kinds of training and their usefulness. The results suggest a number of points deserving attention by academic and political authorities aiming to ensure a high level of vocational skills.

Introduction

The Spanish training system provides vocational training under three main headings, regulated training, occupational training and continuing training.

Regulated vocational training is a form of initial vocational training provided under the education system, aimed at students with no previous work experience. It has developed considerably over time (Cano, López and Ortega, 1993). Currently its primary objective is to ensure trainees develop the abilities necessary to fulfil the roles demanded of them and cope with situations arising in the course of their work. Regulated training has to focus on the acquisition of the vocational competence required for the job (Royal Decree 676/93). Every certificate of regulated vocational training includes an occupational profile listing a number of work activities and levels of competence expected of those who have been trained in their various work situations, referred to as vocational achievements. Prieto (1994) states clearly and precisely that the objective of regulated vocational training should be to equip trainees to perform a job of work through acquisition of the necessary competences in the form of knowledge, social and technical skills, etc.

Occupational training is defined by the Fondo de Formación (1992) as the result of teaching and learning efforts directed at improving the preparation of those concerned for the world of work. Another definition which might be used for reference is that of the National Institute of Employment (INEM, 1992). It describes occupational training as training designed to equip workers, employed or unemployed, for a given occupation or job by means of shorter or longer courses with

a marked practical emphasis. Frias (1994) defines occupational training more strictly, as developing a series of competences in unemployed people, or first-time job-seekers, so as to facilitate their integration into the labour market. This limits the kind of person at whom training is targeted, but agrees with the other definitions as regards its objectives. It is provided outside the education system and an essential condition of occupational training that distinguishes it from regulated vocational training is that it is not academically recognised. Another is that it should be exclusively aimed at providing vocational skills, thereby ruling out training of a more general nature, or personal development courses.

The third category of training is continuing training, which is for workers employed in the public sector at central, autonomous community or local level and for those employed in private firms.

Another type of training is work-based training. By this is understood those periods of practical work in firms that follow a course of occupational training, or work experience that combines the acquisition of a body of knowledge with the performance of a number of functions and tasks (Alonso, 1998). These programmes, which do not involve classroom instruction, nonetheless enable trainees to acquire a combination of knowledge, skills and attitudes¹.

The Ministry of Education and Culture has its own version of work-based training. When it recently introduced the new system of regulated vocational training it created a 'Training at work centres' module, the chief purpose of which is to concentrate training activities on a work centre (Royal Decree 676/93). Training at work centres takes place in a real working en-

1) One good example is the programmes the Commune of Madrid has been organising since 1994 through the Instituto Madrileño para la Formación under the name of Finnova.



Table 1
Frequency distribution of variables for types of training

	Not at all	Very little	Reasonably	Sufficiently	Very
Your VT is suitable for FINNOVA	6	23	46	150	73
VT equips you for work	2	20	97	134	44
OT is useful for work	5	8	48	147	47
FINNOVA is useful for work	2	4	29	132	133
Usefulness of regulated training		7	70	115	97
Usefulness of occupational training	1	18	83	105	36
Usefulness of FINNOVA	2	11	26	98	163

vironment. Trainees perform tasks involved in different occupations. They become acquainted with the way production processes or the provision of services are organised and with relationships in a working environment (Directorate-General for Regulated Training, 1994). This type of training is compulsory for trainees pursuing medium- and higher-level training courses. Courses take up eight, ten or fifteen weeks of the school year in the one or two terms after a trainee has covered all the subjects needed for the relevant qualification. Trainees are not employed (Royal Decree 2317/93) and cannot be paid for work done during training.

Martínez (1996) considers the system of training at work centres run by the Ministry of Education and Culture would be more useful if the objectives were extended to helping to boost the number of trainees subsequently finding employment, by evaluating the competence of those trainees who do manage to do so.

Work-based training is the most expensive form of training. Some courses include it as an addition to the programme but periods of work experience with a firm extending beyond three months are rare and training leading to qualification that is exclusively work-based even rarer.

The various types of training have demonstrated their usefulness over the years. They have become well established and are supported by government authorities, who see them as a means of enhancing individuals' qualifications.

For this survey continuing training has been treated as a form of occupational training as defined by the Fondo de Formación and INEM.

We proposed a classification of training distinguishing between three types: regulated vocational training, occupational training (which includes continuing training) and work-based training. This classification is used in the empirical section of this article.

Methodology

Objectives

The purpose of this article is to determine which of the various forms of training - regulated, occupational or work-based - the trainees themselves perceive as most useful and, more specifically, how their perceptions differ according to the academic qualification involved and whether trainees distinguish clearly between the different types of training.

“We proposed a classification of training distinguishing between three types: regulated vocational training, occupational training (which includes continuing training) and work-based training.”



Table 2:
Validity of candidate selection and the different types of vocational training

Variable	FP_ADECU	FP_UTIL	FO_UTIL	FIN_UTIL	FP	FO	F_PRAC
Overall freq.	298	297	255	300	289	243	300
Mean	3.8758	3.6667	3.8745	4.3000	4.0450	3.6461	4.3633
Median	4.00	4.00	4.00	4.00	4.00	4.00	5.00
Mode	4.00	4.00	4.00	5.00	4.00	4.00	5.00
Stand. dev.	0.93637	0.83423	0.81324	0.75181	0.82162	0.83706	0.84084
Mean error	0.054	0.048	0.050	0.043	0.048	0.053	0.048
Coeff. of variation	0.241	0.227	0.209	0.174	0.203	0.229	0.192
Min. value	1.00	1.00	1.00	1.00	2.00	1.00	1.00
Quartile I	3.00	3.00	4.00	4.00	3.00	3.00	4.00
Quartile III	4.00	4.00	4.00	5.00	5.00	4.00	5.00
Max. value	5.00	5.00	5.00	5.00	5.00	5.00	5.00

“Our sample comprised 332 young people of an average age of 24 who had attended second-level vocational training courses and who had taken part in the Finnova work-based training programme in 1994 and 1995.”

Population and sample

Our sample comprised 332 young people of an average age of 24 who had attended second-level vocational training courses and who had taken part in the Finnova work-based training programme in 1994 and 1995. This programme lasted a year, its principal objective being to equip trainees with the knowledge and skills necessary to find employment. Courses were held at universities and government-run research centres of the Autonomous Community of Madrid. Since the survey covered all those taking part in the programme, the population and sample were identical.

Procedure

The Finnova '94 and Finnova '95 programmes covered two separate groups of trainees from different years. The first step was to check that any differences between the groups were not significant. Once this was found to be the case the groups were combined in a single population for data analysis.

A short questionnaire was drawn up and used two years running. Questions centred on how useful the trainees considered the various types of training they had received and were currently receiving. The highest level of training involved was level 2. All were taking part in a work-

based training programme and many had already benefited from occupational training.

The variables for the various forms of training, ranked on a five-point Likert scale, were as follows:

FP_ADECU: Is the knowledge you acquired during your specialised training course sufficient for you to do the job involved in your work-based training or place under the Finnova scheme?

FP_UTIL: Does the knowledge you have acquired during your specialised training course on its own ensure that you are suitably prepared for a job in the field concerned?

FO_UTIL: Will the knowledge you have acquired on the occupational training courses (CAM, IMAF, IMEM, IMEFE etc.) be useful to you in carrying out a job in the field concerned?

FIN_UTIL: Will the knowledge you are acquiring under the Finnova scheme be useful to you in carrying out a job in the field concerned?

FP: Usefulness of regulated vocational training (level 2)

FO: Usefulness of occupational training courses

F_PRAC: Usefulness of work-based training (Finnova)



There were thus two questions concerning the usefulness of regulated vocational training (FP_UTIL and FP), two relating to occupational training (FO_UTIL and FO) and two to work-based training (FIN_UTIL and F_PRAC). There was also a question as to how suitable the training they had been given was proving for their work-based training placement (FP_ADECU).

We worked on the basis of the average grading in the academic qualifications obtained by some individuals in regulated vocational training (grade variable).

The data was analysed statistically by parametric and non-parametric methods. The parametric methods used were factor analysis using the principal axes with Kaiser's normalisation and equamax rotation to see the groupings of the various elements and the Cronbach α reliability analysis to determine the inherent consistency of the questions asked. The non-parametric methods were Spearman's coefficient of rank correlation to determine the degree of relationship between the variables, the Mann-Whitney U test to determine any statistically significant differences between the two groups, the Kruskal-Wallis (χ^2) test to analyse the differences between more than two groups and the Cochran Q test when the scores were dichotomous and there were more than two groups.

In the initial phase a check was made to establish the existence of any statistically significant differences between the variables of the survey as a function of sex, occupational family for which practical training was taking place, and subjects' performance (assessed by a tutor responsible for each individual's training) and satisfaction scored on a scale.

To check whether differences existed between individual perceptions of training usefulness, trainees were put into two groups - those who rated the usefulness of training as medium, low or very low (scores less than 3) and those who rated it high or very high (4 or 5). The variables were divided into a series of dichotomies with the lowest scores recorded as zero and the highest as one.

Statistical analyses were performed using the SPSS 7.5 2S software package. Charts were drawn using Word Perfect 8.0.

Table 3:
Usefulness of the different types of training
(Average scores out of a maximum of 5)

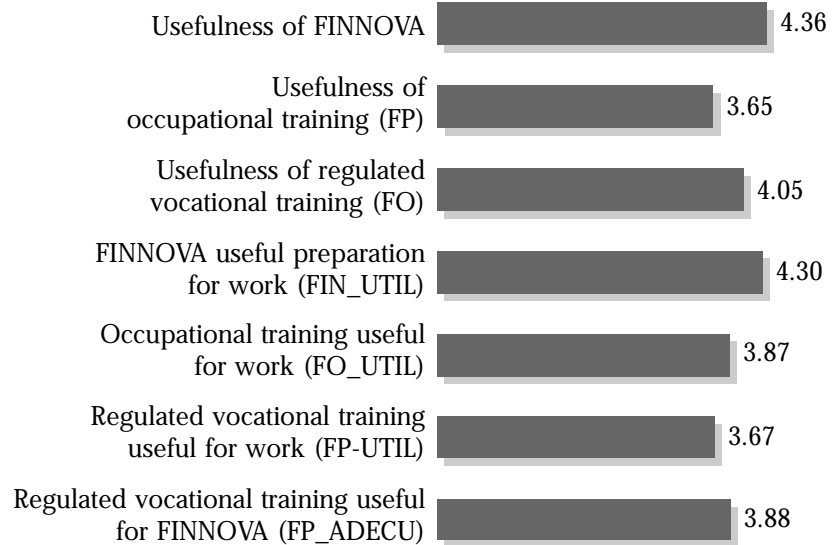


Table 4:
Coincidence and explained variance of variables

Variable	Coincidence	* Factor	Proper value	% variance	cumul. %
FP_ADECU	0.23167	* 1	2.29905	32.8	32.8
FP_UTIL	0.62547	* 2	1.16046	16.6	49.4
FO_UTIL	0.76342	* 3	0.69918	10.0	59.4
FIN_UTIL	0.75305	*			
FP	0.37792	*			
FO	0.52161	*			
F_PRAC	0.88553	*			

Table 5:
Factors with variables

	Factor 1	Factor 2	Factor 3
F_PRAC	0.92761		
FIN_UTIL	0.84577		
UTIL		0.83270	
FO		0.70094	
FP_UTIL			0.77950
FP			0.60808
FP_ADECU			0.35768



Table 6:
Sex-based differences

Variable	Mann-Whitney test	Probability	Men		Women	
			Mean rank	N	Mean rank	N
FP_UTIL	8778.5	0.0017	135.69	162	164.97	135
FIN_UTIL	8687.5	0.0003	135.13	162	168.55	138
FP	8619.5	0.0112	134.54	161	158.16	128
F_PRAC	8626.0	0.0001	134.58	161	168.94	139

“All types of training are perceived by trainees as being useful for carrying out a job, especially work-based training where the means are higher than 4 out of 5. The averages for the questions concerning the usefulness of regulated vocational training and occupational training are higher than 3.6 out of 5 with a median of 4.”

Results

A reliability check was carried out for the seven training variables to ensure the inherent consistency of the survey. This showed a high coefficient of reliability ($\alpha = 0.71$) with statistically significant differences between the means.

A first step was to determine the frequency distribution of the variables (table 1) to see the trends in the replies and calculate measures of central tendencies and dispersion (table 2) to analyse subjects' replies for each variable.

The FP_ADECU variable (the suitability of training for a work-based training placement) was used to validate the selection of trainees for the programme, namely the appropriateness of the requirements in terms of regulated training to qualify for a place in the programme. 74.8% of respondents considered the requirements sufficiently or very appropriate. The mean was 3.88 and the median 4 (out of a total of 5) points (see table 2). The validity of selection was high for both years, but especially in the case of the second ($U=9369.5$; $P=0.01$), demonstrating the value of previous experience when an operation has to be repeated several times.

Other questions related to the usefulness of the different types of training in general and for coping with a particular job of work. The average scores given are shown in table 3; all are higher than 3.5 out of a maximum of 5.

All types of training are perceived by trainees as being useful for carrying out a job, especially work-based training where the

means are higher than 4 out of 5. The averages for the questions concerning the usefulness of regulated vocational training and occupational training are higher than 3.6 out of 5 with a median of 4.

A factor analysis was carried out (tables 3, 4 and 5) to find out how the responses of individual subjects to the various questions coincided and which type of training the subjects found most useful. 59.4% of the data turned out to be explainable by three factors. Factor weightings are high, except in the case of FP_ADECU (suitability of training for a work-based training placement) since this variable related to the validity of the selection and was not concerned with usefulness like the other variables. While excluding it from the analysis would have the effect of increasing the degree of explained variance - to 66.54% - it was retained because of its contribution to the third factor.

The first factor ('Work-based occupational training') explains 32.8% of the data. The second factor ('Occupational training') explains 16.6% of total variance and the third factor ('Regulated vocational training') explains 10%.

The factor analysis showed that trainees distinguished clearly between the three types of training and their usefulness, not only as regards the knowledge imparted but also the usefulness of that knowledge at the actual workplace.

Spearman's coefficient of rank correlation only shows correlations higher than 0.4 between the variables for regulated training FP and FP_UTIL (0.41), for occupational training FO and FO_UTIL (0.62) and for work-based training F_PRAC and FIN_UTIL (0.76). In other words, the ques-



Table 7:
Differences as function of occupational family

Variable	χ^2 test	Probability	Occupational families ²										
			Mean Rank										
			1 (N=8)	3 (N=25)	4 (N=11)	5 (N=9)	6 (N=88)	7 (N=9)	8 (N=22)	9 (N=54)	10 (N=45)	12 (N=41)	13 (N=12)
FP_UTIL	39.70	0.00	164.50	142.59	202.50	111.07	168.71	152.75	137.79	105.64	179.43	132.23	100.58
FP	34.52	0.00	154.00	152.73	188.00	123.14	162.88	126.13	149.00	133.88	166.89	95.43	86.33
FIN_UTIL	25.91	0.01	145.71	119.28	182.75	124.21	165.01	133.75	116.74	133.25	175.43	158.24	96.17
F_PRAC	37.89	0.00	136.38	109.75	163.50	130.93	172.91	128.69	116.88	141.95	169.56	159.72	62.38

- | | | |
|--------------------------|--|----------------------------------|
| 1. Farming | 5. Heavy and civil engineering | 9. Repairs and maintenance |
| 2. Building construction | 6. Chemical industry | 10. Health |
| 3. Manufacturing | 7. Cultural information and performances | 12. Corporate services |
| 4. Agrifood industries | 8. Installation and assembly | 13. Transport and communications |

tions most interrelated are those referring to the same types of training. It would therefore seem that individuals distinguish clearly between the different types of training when rating them, and the data may be regarded as valid.

The Cochran Q test (Q=52.25; P=0.0001) yielded statistically significant differences between the three types of training. The type of training which individuals perceive as the most useful is work-based training, followed by regulated training and then occupational training. It should be borne in mind that this result could be influenced by the fact that those questioned were at that moment engaged in work-based training, which could reflect in their replies.

To determine which type of training was perceived as more useful by trainees who had gained the best gradings in their regulated training we used the Mann-Whitney U test. No statistically significant differences were found (U=232; P=0.319) in the perception of usefulness of regulated training between those with better or worse gradings. However, differences were found in the case of occupational training (U=114; P=0.008) and work-based training (U=62.5; P=0.001) which scored higher with those with better grades. Thus it was those trainees with the better grades in regulated vocational training who considered occupational and work-based training to be more useful.

This finding coincides with the Spearman coefficient of rank correlation in that the average academic qualification of the trainee (their grade) has a 0.44 correlation with the usefulness of the knowledge acquired in the Finnova programme for carrying out a job (FIN_UTIL), a correlation of 0.42 with the usefulness of the knowledge acquired in occupational training for carrying out a job (FO_UTIL) and a correlation of 0.44 with the usefulness of occupational training courses (FO). Those trainees who may be assumed to have had to make a greater effort to get through the second-level vocational training find it the most useful.

When it came to sex (table 6) statistically significant differences were also found for the FP_UTIL variable, which relates to the usefulness of knowledge acquired in vocational training for carrying out a job ($\chi^2=8778.5$; P=0.0017), and for the regulated vocational training variable FIN_UTIL, which refers to the usefulness of knowledge acquired under the Finnova programme for carrying out a job ($\chi^2=8687.5$; P=0.0003). In both cases women score usefulness higher than men. The same trend emerges with regard to the usefulness of regulated vocational training (FP) ($\chi^2=8619.5$; P=0.0112) and of work-based training (F_PRAC) ($\chi^2=8626$; P=0.0001).

Women clearly find regulated training and work-based training more useful than

“Thus it was those trainees with the better grades in regulated vocational training who considered occupational and work-based training to be more useful.”

“Women clearly find regulated training and work-based training more useful than men. There are no differences as regards the usefulness of occupational training.”



Table 8:
Differences as function of performance

Variable	Mann-Whitney test	Probability	Low-performance group RTG ≤ 6		High-performance group RTG > 6	
			Mean rank	N	Mean rank	N
FP	1952.5	0.0013	93.85	24	146.99	260
FO_UTIL	1913.5	0.0401	98.48	22	128.11	228
FO	1701.0	0.0164	88.82	22	123.70	218
FIN_UTIL	1539.0	0.0001	74.56	25	154.80	270
F_PRAC	1579.0	0.0001	76.16	25	154.65	270

men. There are no differences as regards the usefulness of occupational training.

There are statistically significant differences in trainees' perception of the usefulness of the various types of training according to the occupational family of the jobs to which the trainees were allocated for their practical training (table 7). These appear for the variables for regulated training: FP_UTIL ($\chi^2=39.6984$; $P=0.0001$), FP ($\chi^2=34.5230$; $P=0.0003$) and work-based training - FIN_UTIL ($\chi^2=25.9054$; $P=0.0067$) and F_PRAC ($\chi^2=37.8869$; $P=0.0001$).

Trainees who attribute a greater usefulness to regulated vocational training are those with work-based training placements in the agrifood, health, chemical and farming occupational categories. Those considering it to be less useful are those in transport and communications and repairs and maintenance.

Those who consider work-based training to be most useful are also in jobs in the agrifood, health and chemical sectors as well as in corporate services. Those who consider it less useful are in transport and communications and manufacturing. It would appear that the occupations in the first group involve more varied tasks and a greater learning content while those in the second group are more monotonous.

Occupational training is perceived as equally useful by all, regardless of the field concerned.

Those performing best in work-based training regard all three types of training

as more useful than do those performing less well (Table 8). These differences apply in the case of the regulated training variable FP ($U=1952.5$; $P=0.0013$), the occupational training FO_UTIL ($U=1913.5$; $P=0.0401$) and FO ($U=1701.0$; $P=0.0164$), and for the work-based training variables FIN_UTIL ($U=1539$; $P=0.0001$) and F_PRAC ($U=1579$; $P=0.0001$).

Those individuals most satisfied with their work-based training placement attributed a greater usefulness to occupational training and work-based training than those who were less satisfied (table 9). Differences appear in the variables FO_UTIL ($U=1918$; $P=0.0463$), FIN_UTIL ($U=1324$; $P=0.0001$), and F_PRAC ($U=1360.5$; $P=0.0001$). There were no differences in the perceived usefulness of regulated vocational training.

Conclusions

Individuals distinguish very clearly between the three types of training and their usefulness. Generally, they consider work-based training the most useful, followed by regulated vocational training, with occupational training coming last.

A closer analysis shows differences in the perception of usefulness as a function of:

- sex (women attribute greater usefulness to regulated and work-based training than men);
- grade (those obtaining higher grades in regulated training consider work-based



Table 9:
Differences as function of satisfaction

Variable	Mann-Whitney test	Probability	Low-satisfaction group Overall S ≤ 5		High-satisfaction group Overall S > 5	
			Mean rank	N	Mean rank	N
FO_UTIL	1918.0	0.0463	83.00	28	105.60	176
FIN_UTIL	1324.0	0.0001	58.71	31	130.73	211
F_PRAC	1360.5	0.0001	59.02	32	131.55	211

and occupational training more useful, while those with poorer grades prefer training under the education system);

- performance (those performing best in work-based training rate it more useful than do those performing less well);
- satisfaction (the most satisfied subjects rate work-based and occupational training higher than those who are less satisfied).

The results show that individuals perceive work-based training as most useful, suggesting it would be appropriate to generalise the use of work-based training for the more usual types of training. This would mean:

- incorporating work-based training into work centre training programmes, thereby making it a regular feature of regulated vocational training and getting it started with the necessary assistance and resources;
- extending the use of work-based training in occupational training courses and making it a requirement for qualification;
- increasing the number of ad hoc work-based training programmes, the success of which would depend essentially on the clarity of definition of the occupational profiles involved and a suitable choice of trainees.

Such a generalisation would involve concluding agreements with suitable firms, who normally are very receptive to co-operative schemes of this type. This

should achieve the two-fold objective of imparting the knowledge, skills and/or attitudes aimed at in any training programme and ensuring they are subsequently applied in actual work situations.

The general use of work-based training would assist trainees in their learning process and make it easier to determine which aspects have been mastered sufficiently to be applied in practice on the job. This will doubtless make it possible to assess how worthwhile training is.

Appointing a tutor to be responsible for solving problems and assessing trainees' competence is extremely useful (Sparrow, 1994) and permits the monitoring process that should form part of any training activity. Monitoring can often be left to the trainer as the expert on the subject (Buckley and Caple, 1991).

Employers would then have not only a workforce that is suitably trained, but also one possessed of the practical know-how so often lacking. They would have the opportunity to check the ability and attitude of a trainee when faced with a number of tasks and determine whether the process of socialisation at work (Prieto, Peiró, Bravo and Caballer, 1996) has been successful. These samples of behaviour would undoubtedly help to predict a trainee's future performance more effectively than do occupational tests (Levy-Leboyer, 1992) or training tests (Reilly and Manese, 1979; Robertson and Kandola, 1982). If at a later date firms offering practical work experience are in need of personnel the information will prove very useful to them.

“The results show that individuals perceive work-based training as most useful, suggesting it would be appropriate to generalise the use of work-based training for the more usual types of training.”



The trainees for their part will benefit from more attractive curricula and from increased job opportunities, whether in the same firm, others in the same sector, or in jobs related to the practical experience gained.

The task of making the use of work-based training the norm will call for constant effort by government authorities at all levels to maintain and improve the three-fold system of regulated vocational, occupational and continuing training.

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Europe International

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The transition from the educational system to working life: use of national statistics

MAINGUET C

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At this time of high unemployment, especially among young people, analysis of the steps in the transition between the educational system and working life has become an important field of study. Surveys are being developed, research networks set up, etc. The aim of this report is to arrive at an understanding of the factors that ensure the success of vocational integration and offer protection against unemployment. Statistical studies on the transition cannot of course, as things now stand, produce clear-cut answers, but what they can do is to state the questions and sometimes challenge received ideas on the prospects offered by the various streams of study. This report is intended to be a provisional review of the various national surveys existing in Europe, the comparative research conducted as a result, the main variables surveyed, the methodological problems encountered, the principal findings, the questions still unanswered and the hypotheses. It also reviews the national surveys currently gathering information on the transition, the existing research networks, comparative studies and, at the end, an exhaustive bibliography. For the researcher, then, this report is a sort of interim review, in that it highlights the hypotheses that need to be developed, the improvements to be made to the data-gathering tools, the comparisons and harmonisation that are called

for and the variables and indicators needing further investigation.

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Adults in training: an international comparison of continuing education and training

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Organisation for Economic Co-operation and Development, OECD

Centre for Educational Research and Innovation, CERI

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2 rue André-Pascal,

F-75775 Paris Cedex 16,

Tel.: (33-1) 45248200,

Fax: 49104276,

E-mail: sales@oecd.org,

URL: <http://www.oecd.org/publications>

This paper seeks to exploit the new opportunity offered by the International Adult Literacy Survey, which collected detailed information on participation in training in the twelve months prior to the survey, to compare continuing education and training of adults across countries. The main focus of the paper is on differences between countries in participation in education and training, the duration of courses, and financial sponsorship. The paper also examines cross-national similarities and differences in education and training by gender, age group, educational attainment, literacy levels, occupation, and the size and type of the organisations in which people work. The survey reveals substantial cross national differences in the incidence and volume of continuing education and training among adults. Notwithstanding these marked differences, however, the survey also suggests remarkable similarities across countries in the distribution of education and training within sub-populations.

<http://www.oilis.oecd.org/OLIS/>

1999DOC.NSF/LINKTO/CERI-WD(99)1

Downloadable document

Reading selection

This section has been prepared by
Anne Waniart,
and the Documentation Service with the help of members of the national documentation network

This section lists the most important and recent publications on developments in training and qualifications at an international and European level. Giving preference to comparative works, it also lists national studies carried out as part of international and European programmes, analyses of the impact of Community action on the Member States and national studies seen from an external perspective.



Education policy analysis 1999

Organisation for Economic Co-operation and Development, OECD
Centre for Educational Research and Innovation, CERI

Paris: OECD, 1999, 94 p.
ISBN: 92-64-17136-3, en
OECD Publications,
2 rue André-Pascal,
F-75775 Paris Cedex 16,
Tel.: (33-1) 45248200,
Fax: 49104276,
E-mail: sales@oecd.org,
URL: <http://www.oecd.org/publications>
EN (Also: FR,DE)

To meet a continuing growth in demand for learning, OECD countries seek to provide a wider array of education and training opportunities for learners in their earliest years through adult life. Has increased participation in education and training in the 1990s met the demand for lifelong learning? What gaps remain, and for which learners and in which types of learning? What are the most promising policy directions to encourage the expansion of learning opportunities that respond to learning aims and learner needs? How can policies help marshal the resources needed for the investment in learning and to encourage their efficient use? This 1999 edition of Education Policy Analysis explores these and other questions. Drawing on the policy experience and trends in OECD countries, the four chapters in this book cover: - projections of growth in participation in formal education and training to meet lifelong learning targets, and implications for costs; - policy options to secure the benefits of early childhood education and care; - the uses of ICT in education; - tracking participation from under-represented groups in tertiary education.

Image location: <http://electrade.gfi.fr/isroot/OECDBookShop/covers/9699092m.gif>

Employment and growth in the knowledge-based economy

Organisation for Economic Co-operation and Development, OECD
Paris: OECD, 1999, reprint, 392 p.
ISBN: 92-64-14813-2, en
OECD Publications,
2 rue André-Pascal,
F-75775 Paris Cedex 16,

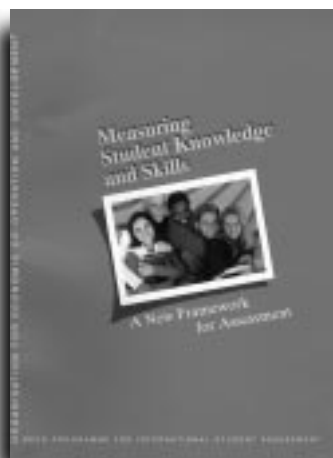
Tel.: (33-1) 45248200,
Fax: 49104276,
E-mail: sales@oecd.org,
URL: <http://www.oecd.org/publications>

Managers, policy makers and economists concur, increasingly, about the importance of knowledge and learning for the economic success of people, firms and national economies. But how is knowledge being produced, distributed and used as information technology becomes more widely diffused? And as production becomes knowledge-intensive in its inputs and outputs, what are the implications for economic analysis and policy? How can we measure the growing importance of knowledge for economic development? This publication brings together articles by a range of international experts and scholars. Their observations and conclusions cover the complex and vital intersection between empirical measurement, economic theory, and policy.

Measuring student knowledge skills: a new framework for assessment

Organisation for Economic Co-operation and Development, OECD
OECD Programme for International Student Assessment, PISA
Paris: OECD, 1999, 81 p.
ISBN: 92-64-17053-7
ISBN: 92-64-17053-1
OECD Publications,
2 rue André-Pascal,
F-75775 Paris Cedex 16,
Tel.: (33-1) 45248200,
Fax: 49104276,
E-mail: sales@oecd.org,
URL: <http://www.oecd.org/publications>
EN FR

Parents, students, the public and those who run education systems need to know whether children are acquiring the necessary skills and knowledge to become tomorrow's citizens and to continue learning throughout life. International indicators can describe the levels of achievement in various countries, to which others might aspire. They can provide direction for school's instructional efforts and for students' learning as well as insights into curriculum strengths and weaknesses. This is the first volume in the PISA series. It provides the conceptual framework on which the PISA 2000 assessment is based.





It defines the domains of reading literacy, mathematics literacy and scientific literacy forming the core of PISA in terms of the content the students need to acquire, the processes that need to be performed, and the contexts in which knowledge and skills are applied. It also describes the methods developed to ensure that the assessment tasks are valid across countries, are strong at measuring relevant skills and are based on authentic life situations.

Preparing youth for the 21st century: the transition from education to the labour market: proceedings of the Washington D.C. Conference, 23-24 February 1999

Organisation for Economic Co-operation and Development, OECD
Paris: OECD, 1999, 458 p.
ISBN: 92-64-17076-6
OECD Publications,
2 rue André-Pascal,
F-75775 Paris Cedex 16,
Tel.: (33-1) 45248200,
Fax: 49104276,
E-mail: sales@oecd.org,
URL: <http://www.oecd.org/publications>

This publication points the way to future initiatives to improve youth labour market and educational outcomes as identified by policy-makers and experts of OECD countries brought together at the Washington Conference "Preparing youth for the 21st century: the policy lessons from the past two decades" held on 23-24 February 1999. To give a most comprehensive picture to date, it first puts today's challenges into a historical perspective by taking stock of two decades of policies for youth employment. But more substantially, this book provides insight into experiences and policy issues in the United States, as well as in Europe and Japan, with stress on the special needs of disadvantaged youth. Anyone interested in making sure that youth will make a good start in education and in establishing rewarding labour market careers will find this compendium a milestone in the youth employment debate.

Quality and internationalisation in higher education

Organisation for Economic Co-operation and Development, OECD
Programme on Institutional Management in Higher Education, IMHE
Paris: OECD, 1999, 268 p.
ISBN: 92-64-17049-9
OECD Publications,
2 rue André-Pascal,
F-75775 Paris Cedex 16,
Tel.: (33-1) 45248200,
Fax: 49104276,
E-mail: sales@oecd.org,
URL: <http://www.oecd.org/publications>
EN (Also: FR)

This book discusses some of the challenges of ensuring quality in internationalisation, and provides a framework to assist institutions in designing and reviewing their own strategies and policies. Analysis of the evolving policy environment is contributed by internationally recognised experts, and case studies from Australia, Finland, Kenya, Mexico, Poland and United States are included. The book also presents the Internationalisation Quality Review Process, a unique practical tool for institutional leaders and managers who wish to develop the international dimension of their programmes and services.

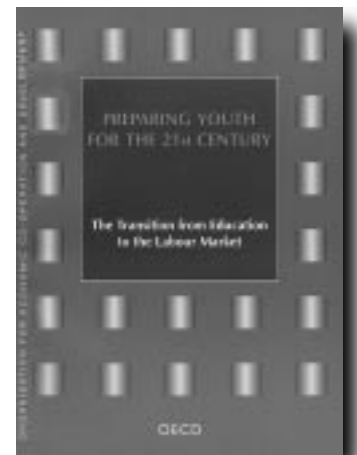
Cover picture

http://www.oecd.org/els/images/gifs/qualhighed_fre.gif

Employment revival in Europe: labour market success in Austria, Denmark, Ireland and the Netherlands

AUER P
International Labour Office, ILO
Geneva: ILO, 2000, 140 p.
ISBN: 92-2-110841-4
ILO Publications,
CH-1211 Geneva 22, Switzerland,
or from ILO local offices in many countries,
Tel.: (41-22) 7997912,
Fax: (41-22) 7998577,
E-mail: pubvente@ilo.org,
URL: <http://www.ilo.org>

This innovative study reviews the remarkable economic and labour market recovery made by four small European countries: Austria, Denmark, Ireland and the Netherlands. It analyses their success and





highlights the specific factors responsible, in particular the promotion of social dialogue and the institution of critical macroeconomic and labour market policies. While assessing the progress and examining the remaining problems in these four countries, the book compares their progress with that of other European Union countries and examines how similar policies and action could help combat unemployment and make progress towards full employment. It also shows the employment intensity of economic growth and gives readers a substantial, broad overview of the economic and labour market situation in each country. The reasons behind the success are considered as well, and the study shows that developed Welfare States in Europe have recently demonstrated a fair capacity for adjustment resulting in labour market success. The study makes relevant policy recommendations for promoting further growth and social progress in these countries, as well as in others across Europe. There is a special annex dedicated to education and training.

ing and reacting to labour market signals, and solving common problems in strategic planning. It also offers useful analytic tools for programme assessment, describes a structure of funding mechanisms and reviews schemes for financing vocational education, labour market training and government-regulated financing of training in enterprises. Furthermore, the book outlines a key framework for guiding training providers to improve organisational structure, staffing and budgeting procedures, and quality control.

World trends in adult education research

WERNER M (ed.)

UNESCO Institute of Education, UIE
International Seminar on World Trends in Adult Education Research, Montreal, Canada, 06-09 September, 1994
Hamburg: UIE, 1999, 280 p.
UIE,
Feldbrunnennstrasse 58,
20148 Hamburg, Germany,
Tel. +49 40 4480410,
Fax: +49 40 4107723

Managing vocational training systems: a handbook for senior administrators

GASSKOV V

International Labour Office, ILO

Geneva: ILO, 2000, 278 p.

ISBN: 92-2-110867-8

ILO Publications,

CH-1211 Geneva 22, Switzerland,

or from ILO local offices in many countries,

Tel.: (41-22) 7997912,

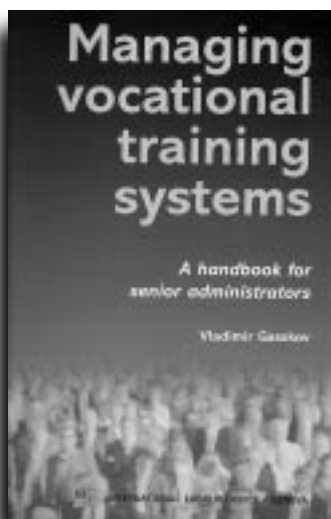
Fax: (41-22) 7998577,

E-mail: pubvente@ilo.org,

URL: <http://www.ilo.org>

This book addresses the multiplicity of challenges facing public vocational education and training programmes around the world. It provides state-of-the-art materials and frameworks for coordinating important management and structural reforms. It offers practical guidelines for managing budgets and finance, evaluating performance and developing strategic operational plans, along with other valuable methods and techniques for running effective vocational education and training systems. The handbook is organised into six distinct modules and provides invaluable suggestions for identify-

This document presents in three sections the contributions prepared for the concluding international seminar on World Trends in Adult Education Research, held in Montreal. The first section includes two analyses of trends and prospects in the field of adult education research and the implications for a future research agenda. The second section consists of the regional studies which were prepared in the framework of this trend analysis, enriched by selected national analyses. In alphabetical order it starts with the two contributions from Africa. The study on the Arab region is followed by the three-part Asian contribution. The Pan-European survey is also divided into three parts, 1) a regional analysis of the Western European situation, 2) one about Central and Eastern European countries and a study on Canada. Two regional analyses finally present the Latin and American picture, 3) the final third section consists of the synthesis report of the Montreal seminar.





Getting the stakeholders involved: partnership at work in three countries from Africa, Asia and Eastern Europe

MUNBODH S;ATCHOARENA D (ed.)

International Institute for Educational Planning, IIEP

United Nations Educational, Scientific and Cultural Organisation, UNESCO

IIEP research and studies programme (Paris), 1999, 142 p.

ISBN: 92-803-1181-6

IIEP, 7-9 rue Eugène-Delacroix, F-75116 Paris

Nowadays, partnership is often viewed as a way of improving the governance of technical and vocational education systems. The wide recognition of social partners as key players and the emergence of the concept of social dialogue have largely contributed to this trend. In many industrialised countries, partnership has for a long time been an important element for the regulation, provision and financing of technical and vocational education. Increasingly, developing economies and countries in transition are also establishing partnership frameworks and instruments to improve their training systems and to make them more relevant and responsive to both labour market and social needs. This book is meant to provide detailed information on specific partnership processes, as well as a reflection on good practice, by reviewing the recent experiences of Mauritius, Hungary and India. Although this publication does not provide general answers about successful partnership, it is hoped that it will be useful to practitioners and policy-makers anxious to know more about how to make it work and also about the risks and obstacles involved.

Lifelong learning in Europe: differences and divisions - Vol 2: strategies of social integration and individual learning biographies

WALTHER, A; STAUBER, B (eds.)

Lifelong learning in Europe, Lisbon, May 1998

Tübingen: Neuling Verlag, 1999, 247 p.

Regionale und internationale Sozialforschung

ISBN: 3-922859-51-8

This book takes up the discussion on the potentials and limitations of lifelong learn-

ing that have been raised in the first volume. Like the first volume it is based on the proceedings of a European conference held in Lisbon in 1998. This volume concentrates on the contradictions of lifelong learning policies: flexibilisation and individualisation require a differentiation of learning opportunities according to individual needs and aspirations, social positions and biographical perspectives. The relationship between differences and divisions is analysed theoretically as well as in concrete case studies.

European Union: policies, programmes, participants

Report from the Commission to the Council, the European Parliament, the Economic and Social Committee and the Committee of the Regions on the implementation, results and overall assessment of the European Year of Lifelong Learning (1996): submitted in accordance with Article 8 of European Parliament and Council Decision No. 2493/95/EC

European Commission

Luxembourg: EUR-OP, 1999, 21 p.

(Documents COM, (99) 447 final)

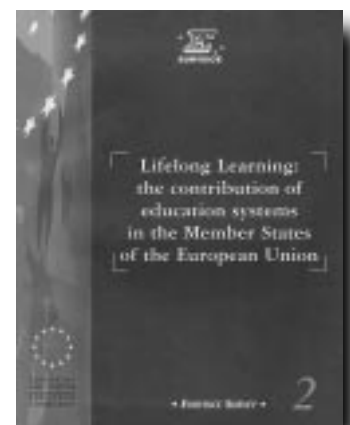
ISSN: 0254-1475, en

EUR-OP, L-2985 Luxembourg, or from its national sales offices, <http://eur-op.eu.int/en/general/s-ad.htm>

Cat.nr.: CB-CO-99-452-EN-C

EN FR DE (Also: DA EL ES FI IT NL PT SV)

Since the initiative for the European Year of Lifelong Learning was implemented in 1996 the concept of "lifelong learning" has gained acceptance in public opinion and political discourse, stimulating policy debate on adapting education and training provision to an increasingly diversified demand. The Commission chose a dimension which highlights the complementarity and continuity between education and vocational training in terms of personal development, integrating people, into society, employability and economic competitiveness. It can be concluded that the acceptance gained indicates that the European Year was a timely initiative which has helped fundamentally to change society and attitudes, and that it has been





one of the more successful initiatives of this type.

Lifelong learning: the contribution of education systems in the Member States of the European Union

Information Network on Education in Europe, EURYDICE

Brussels: Eurydice, 2000, 163 p.

ISBN: 2-87-116-294-8, en

EURYDICE European Unit,

15 rue d'Arlon, B-1050 Brussels,

Tel.: (32 2) 2383011,

Fax: (32 2) 2306562,

E-mail: info@eurydice.org,

URL: http://www.eurydice.org

The learning society is not ahead of us but already with us. Lifelong learning is one of the central principles of the European Union, which has undertaken to strengthen European cooperation in this area; this is the aim which ministers responsible for education and training in European countries have chosen to guide their policies. However, how it should be implemented has not been settled once and for all. The notion of lifelong learning has been very rapidly taken for granted and lauded as a firmly established enterprise. What is at issue now, therefore, is how the concept should be institutionalized. The survey conducted by Eurydice between October 1999 and March 2000 takes stock of the measures and policies implemented by the governments of the 15 Member States so that anyone may have an opportunity to become involved in lifelong learning at any age. After looking back at how the concept was defined and developed, the survey analyses actions undertaken at all levels of the education system (preschool, compulsory, upper secondary and higher education, as well as adult education). The results show that all Member States are using the aim of lifelong learning to inject the necessary vitality and sense of purpose into the reforms they are now implementing. The way they have taken over the concept varies and largely depends on the specific nature of their systems. Yet similar trends are observable regardless of the level of education concerned: improving, broadening and diversifying provision, fighting failure, making use of the new information and communication technologies, developing cooperation within and outside the education sys-

tem, increasing flexibility and improving transparency, etc. The survey is based on information gathered from each country in the course of a working partnership between the National Units of the EURYDICE Network and the appropriate ministerial departments. Its appraisal is thus based on reliable first-hand data.

EN (Also: FR,PT)

http://www.eurydice.org/Documents/LLL/EN/ENQUETE_2_EN.pdf

Downloadable document

Deregulation in placement services: a comparative study for eight EU countries

DE KONING J (coord.); DENYS J;

WALWEI U

European Commission - DG V Luxembourg: EUR-OP, 1999, 67 p.

ISBN: 92-828-6850-8, en

EUR-OP, L-2985 Luxembourg,

or from its national sales offices,

http://eur-op.eu.int/en/general/s-ad.htm

Cat.nr.: CE-21-99-860-EN-C

EN

Until the 1990s job placement was seen as a public task in which the Public Employment Service (PES) was to play the central role. Under the influence of the general tendency towards deregulation and privatisation, and more specifically due to criticism of the PES performance, this has changed. In many countries the PES monopoly in job broking was abolished in the first half of the 1990s. Often this change was followed by further liberalisation of the job services market. Based on national reports for 8 countries (Austria, Belgium, Denmark, Finland, Germany, the Netherlands, Sweden and the United Kingdom), this summary report tries to draw a number of general conclusions about deregulation in placement services. The 8 countries were chosen because deregulation was an important or potentially important development in placement services. The main conclusion is that of the countries involved the market share of private agencies in job placement is only high in the Netherlands and the United Kingdom (and in the Flemish community in Belgium).

http://www.europa.eu.int/comm/dg05/publicat/employment/

deregulation_en.pdf Down

Downloadable document



Survey into the socio-economic background of ERASMUS students

Commission of the European Communities Luxembourg: EUR-OP, 2000, Documents COM (2000) 4 final, 2000, 82 p.

ISSN: 0254-1475, en

EUR-OP, L-2985 Luxembourg,

or from its national sales offices,

<http://eur-op.eu.int/en/general/s-ad.htm>

Cat.nr.: KT-CO-00-014-EN-C

EN FR DE ES (Also: DA FI IT NL PT SV)

As part of the negotiations for the budget revision of the first phase of the SOCRATES programme, the European Parliament requested the European Commission to present a report on the social and economic background of Higher Education students participating in the ERASMUS chapter of the SOCRATES programme. The Commission therefore set up, in co-operation with the ERASMUS National Agencies, a mechanism to collect information by means of a survey of a representative sample of ERASMUS students having participated in the programme in the 1997/98 academic year. It is shown how the scheme has grown from about 3,000 students when it first began in 1987/88 to over 1000,000 today, it is valued throughout the Higher Education world in Europe and is now extending into many of the countries in Central and Eastern Europe. The experiences available to mobile students are many and varied and are not merely educational. Many of the findings of the survey support widespread views about the strengths of a study period abroad and about the impact of the programme which confirms that the Community programmes in the field of education, training and youth play an important role.

The European Employment Strategy: investing in people, investing in more and better jobs

European Commission - DG V

Luxembourg: EUR-OP, 1999, 10 p.

EUR-OP, L-2985 Luxembourg,

or from its national sales offices,

<http://eur-op.eu.int/en/general/s-ad.htm>

EN FR DE ES (Also: DA FI IT NL PT SV)

Europe has not managed to meet one of its key objectives: to generate job oppor-

tunities for all. All Member States are concerned by the different facets of a common problem: many people in Europe have no opportunity to create wealth and earn their share of it. 16.5 million people are looking for a job without success. Over half of those unemployed have been out of work for over a year, one third of them for more than two years. This reduces a person's employability while adding to the growing problem of social exclusion. Unemployment hits particularly hard those people who are often already at a disadvantage when it comes to competing on a labour market where competitiveness is the key word. Unemployment has a high social cost for the individual and a high economic cost for society.

http://europa.eu.int/comm/dg05/empl&est/empl2000/invest_en.pdf

Downloadable document

Modernisation of Europe and the role of the social partners

LARSSON A

European Commission - DG V

Brussels: European Commission - DG V, 1999, 10 p.

Presidency Conference on the Social Dialogue, Helsinki, Helsinki, 2/11/99

European Commission, DG V,

200, rue de la Loi, B-1049 Brussels

EN

During the Presidency conference on social dialogue, which was held in Helsinki, the Director General of DG Employment and Social Affairs spoke of the role of social partners. Social dialogue is about creating better conditions for managing change, in the private as well as the public sector. The wide range of changes and new conditions that govern working life - from technological innovation to consumer preferences, from demographic change to the new gender profile of the workforce - are roughly the same for the public and the private sectors. The social dialogue needs to rise to the challenge the European modernisation agenda is presenting to it if we are all to enjoy economic and social progress in the next century.

<http://europa.eu.int/comm/dg05/speeches/991102alb.doc>

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From the Member States

B **Beleidsnota werkgelegenheid 2000 - 2004**

Vlaams minister Werkgelegenheid en Toerisme

Brussels: Vlaams minister Werkgelegenheid en Toerisme, 2000, 197p.

Vlaams minister Werkgelegenheid en Toerisme, Koolstraat 35, 1000 Brussel

This report on new policy is a concrete presentation of the basic options available in the government agreement for the period 2000- 2004. The report on the most suitable policy sets out the major strategic choices and options in the field of employment and in the field of training for the duration of the government agreement. The report reflects the vision of the responsible minister and forms the basis for debate in the Flemish Parliament. In due course the implementing measures will be presented to the Flemish Government or the Flemish Parliament for approval.

Oudereducatie en lokaal beleid

Vlaams Centrum voor Volksontwikkeling, VCVOVorming (Brussels) 1, 2000, p. 10 - 11

ISSN: 0773-6150

This article refers to the Study Day, held on 14 December 1999, when the Group for the co-ordination of training courses and the Flemish Centre for Social Development organised a conference on the subject of education for older people and the relevant policy that needs to be implemented at local level, in collaboration with Forem. This form of education allows, inter alia, for the social participation of older age groups and for their personal development, so that they can make a longer and better contribution to community life.

D **Arbeitsprogramm 1999 des Bundesinstituts für Berufsbildung**

(1999 Work Programme of the Federal Institute for Vocational Training)

BOTT P (comps.)

Bundesinstitut für Berufsbildung, BIBB Bielefeld: Bertelsmann Verlag, 1999, 224 p.

ISBN: 3-88555-663-4

In addition to a description of the Federal Institute for Vocational Training (BIBB) as a research institution for vocational training, the annual report contains the 1999 research projects, which fall under three research areas. There are 43 projects, including eight externally funded international projects, and 59 planned projects. The publication provides information on focuses for research, research objectives, time frames and contact people at BIBB. An index and organisational diagram of the BIBB are also included.

Berufliche Eingliederung: zur Entwicklung einer erziehungswissenschaftlichen Theorie des beruflichen Verbleibs

(Vocational integration: the development of a scientific educational theory on vocational progress)

ZIMMERMANN M

Munich: Hampp, 1999, IX, 281 p. + bibl. (Wirtschaftspädagogische Studien zur individuellen und kollektiven Entwicklung, 2)

ISBN: 3-87988-379-3

The author considers to what extent vocational training and continuing vocational training affect the kind and quality of jobs secured by graduates of training programmes. The focus is on developing and empirically testing a concept for the transition from school to work. The author also makes recommendations for further research into the relationship between vocational education and integration into employment. The publication should be of interest to those in research, politics and practice who are engaged in the integration of young people into the workforce.

Note: Ph.D. thesis, University of Mannheim, 1998



Berufserziehung und sozialer Wandel

(Vocational education and social change)
STRATMANN K; PAETZOLD G; WAHLE M
Frankfurt/Main: Gesellschaft zur Förderung
Arbeitsorientierter Forschung und
Bildung, 1999, 677 p. + bibl.
ISBN: 3-925070-25-7

The impetus behind Karlwilhelm Stratmann's more than thirty years of research into the history of vocational pedagogy is to point to its continued relevance. The history of vocational training also illuminates tensions between vocational training and socio-political systems. This volume includes a collection of essays on "Vocational education in caste society", which is followed by analyses of "Vocational education in the 19th Century", "Vocational training in the 20th Century" and "Vocational pedagogics as a field of education science."

Bildungscontrolling: Ein Konzept zur Optimierung der betrieblichen Weiterbildungsarbeit

(Training control: a concept for the optimisation of in-plant continuing training)
KREKEL E
Bundesinstitut für Berufsbildung, BIBB
Bielefeld: Bertelsmann, 1999, 112 p. + bibl.
(Berichte zur beruflichen Bildung, 233)
ISBN: 3-7639-0887-0

Technological and economic changes determine new organisational and production structures and demand highly qualified personnel. Enterprises are increasingly taking recourse to training control as a way of planning and regulating in-plant continuing vocational training and of optimising effectiveness and efficiency. The contributions explain different aspects of training control, provide practical examples from in-plant training programmes and point to future challenges for controlling in continuing vocational training.

E Educación y formación a las puertas del siglo XXI: la formación continua en España

(Education and training on the threshold of the 21st century: continuing training in

Spain)
CACHON RODRIGUEZ L; MOLSOSA I
PUJAL J
Madrid: Editorial Complutense,
1999, 411 p.
ISBN: 84-89784-67-1

This is a compilation of reports presented at the general opening of the academic year at the Universidad Complutense of Madrid entitled "Education and training in Spain on the threshold of the 21st century", which took place in San Lorenzo del Escorial from 3rd to 7th August 1999, sponsored by the Fundación para la Formación Continua (FORCEM, the Foundation for Continuing Training). The purpose was to identify the main priorities of continuing training in Spain in order to establish the measures that should be taken within the new framework of vocational training created by the 2nd National Programme of Vocational Training. The report has six parts. The first, "Education, training and learning in the knowledge society" analyses education and labour policies, in particular the Employment Plan and the LOGSE (the General Education Regulation Act). The second, "Training and the social organisations" covers national agreements on continuing training, including opinions of labour and education administrations, trade unions and employer organisations on the 2nd National Programme of Vocational Training. The third is dedicated to continuing training in Spain, especially the management and work undertaken by the FORCEM. The fourth part, "Training policies and social harmony" contains reports from the FORCEM's sectoral and territorial areas, along with an evaluation of the first national agreements on continuing training. Part five includes "The European dimension of vocational training", which concentrates on the reform of the Structural Funds, the development of certain EU initiatives in Spain (OPTIMA I and II) and presents both the trade unions' and employers' assessment of the latest industrial changes. The final part, "New realities in continuing training, practice and projects", includes several innovative practices. The course programme is included in an appendix.





F Technical and vocational training in the perspective of a lifelong education: the contribution of the French Commission for UNESCO

Commission Nationale Française, CNF
United Nations Educational, Scientific and Cultural Organisation, UNESCO
Second International Congress on Technical and Vocational Education, Seoul, Republic of Korea, 26-30 April 1999
Paris: UNESCO, 1999, 22 p.
EN

This document was prepared for the Second International Congress on Technical and Vocational Education, held in Seoul on 26-30 April 1999, as the contribution of the French Commission for UNESCO. The French experience in teaching and vocational training and the perspectives which appear at the dawn of the 21st century are representative of a development which since the eighties has created high hopes for the systems of education and initial and continuing training. Today citizens must be aware that any training is an aid to finding a job but in no way a guarantee that one will indeed find and keep a job. Training must remain - or once again become - a tool for social promotion and an instrument for adapting to new technologies.

Formation professionnelle initiale et continue en Europe: visa pour l'avenir: une étude CEREQ-Elf Aquitaine

AVENTUR F (ed.); MOBUS M (ed.); VERGNE JL (ed.)

Elf Aquitaine, Direction des Ressources humaines

Centre d'études et de recherches sur les qualifications, CEREQ Paris: Magnard Vuibert Multimédia, 1998, 376 p.
ISBN: 2-8434-8031-0

This is a study conducted in the eleven countries in which Elf Aquitaine is established. For each country the first part analyses the place of continuing vocational training in the national vocational training systems by describing these systems. The second part presents an overview of information contained in national documents. It successively covers the organisation and key players of initial vocational training, dynamic movements in these systems (evolution of demand, re-

form policies and occupational integration), the training level of the workforce, continuing vocational training (practices and procedures to regulate the training of employees).

FI Aikuiskoulutus Suomessa ja muualla Euroopassa. [Adult education in Finland and in other European countries]

RAHIKAINEN M

Government Institute for Economic Research

Government Institute for Economic Research. Discussion Papers (Helsinki), 192, 1999, 57 p.

ISSN: 0788-5016 ISBN: 951-561-271-3

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P.O. Box 269,

FIN-00531 Helsinki

This paper gives an overview of trends in adult education in the 1990s. The key figures presented included public costs of adult education, participation in adult education and the scope of education provided. The targets of adult education include, e.g., adjustment to the knowledge economy and to rapid technological changes, redistribution of education over life-cycle, promotion of active policies, and social cohesion. The outcomes of adult education include returns to labour market education and training, returns to in-service training, private rates of return to adult education, and social returns to lifelong learning. Characteristics and motives of participants of adult education are presented along with the issue of the accumulation of education.

Ammatillinen koulutus 2010: työvoiman tarve vuonna 2010 ja ammatillisen koulutuksen mitoitus

[Vocational education 2010: human resources needs in 2010 and the quantitative planning of vocational education]

AUTIO V

Opetushallitus, OPH

Helsinki: Hakapaino Oy, 1999, 290 p.

ISBN: 952-13-0518-5

National Board of Education, Library, Hakaniemenkatu 2, FIN-00530 Helsinki, Finland



The publication deals with the quantitative prediction of vocational education. The starting point is the estimate of human resources which will be needed by 2010. The publication contains an extensive set of background material and a comprehensive description of the development of human resources as well as computational principles and methods for the calculation of the need for vocational education.

Ammatillisen koulutuksen arvostus Euroopassa ja Suomessa: ammattiin ja jatko-opintoihin toiselta asteelta [Esteem for and quality of initial vocational education in Finland and in Europe: pathways from upper secondary education to employment and further education].

LASONEN J (ed.)
Jyväskylä University
Koulutuksen tutkimuslaitos. Tutkimus-
losteita (Jyväskylä) 6, 1999, 292 p.
ISSN: 1456-5153
ISBN: 951-39-0566-7
IER,
P.O. Box 35 (Freda),
FIN-40351 Jyväskylä,
Tel.: (358-14) 2601211,
Fax: (358-14) 2603201,
URL: <http://www.jyu.fi/tdk/kt/index2.html>

This publication is the final report of a national project called "Promoting esteem for vocational education and training" aimed at disseminating information on the results of two extensive projects belonging to the Leonardo da Vinci programme, Post-16 Strategies and INTEQUAL. The two projects surveyed and analysed goals pursued, strategies applied, developmental projects launched and pathways to employment and further employment opened in reforms of upper secondary education in Europe, and compared a number of innovative schemes for developing double qualifications. The publication contains 16 articles by various authors.

Benchmarking ammatillisen aikuis-koulutuskeskuksen toiminnan kehittämisen välineenä [Benchmarking as a development tool in a vocational adult education centre]

KULMALA J
University of Tampere
Acta Universitatis Tamperensis (Tampere)
663, 1999
ISSN: 1455-1616
ISBN: 951-44-4569-4
University of Tampere,
Publications Sales,
P.O. Box 617,
FIN-33101 Tampere, Finland

The purpose of the research underlying this thesis was to find out how vocational adult education centres can develop through the use of benchmarking. The research refers to both quantitative and qualitative aspects. The aim was to find out what kind of understanding and experience adult education centres have of benchmarking activities. In addition, the research focused on certain individual and organisational factors that are prerequisites for benchmarking.

IRL Astonishing success: economic growth and the labour market in Ireland

O'CONNELL P
International Labour Organization - Em-
ployment and Training Department, ILO
Geneva: ILO, 1999, 77 p.; bibl.
(Employment and training papers, 44)
ISSN: 1020-5322;
ISBN: 92-2-111756-1;
ILO local offices
or direct from
ILO Publications,
International Labour Office,
CH-1211 Geneva 22, Switzerland,
<http://www.ilo.org>
EN

This study of Ireland's labour market is part of a series examining countries with impressive labour market records, the other European countries being Austria, Denmark and the Netherlands. Ireland has been transformed over the last decade from a state with poor growth rates to an economy performing at exceptional levels. Since 1993 the economy has grown at annual rates of over 8 per cent (pc), employment is growing by 4 pc per annum and unemployment has fallen to less than 8 pc in 1998 - down from 17 pc in 1993. This study presents a detailed account of the principal trends in the labour market over the period 1981-1998



and discusses the distributional consequences of success in the economy and the labour market. It shows that rapid growth has coincided with increased poverty and low-paid work and that barriers still exist which impede women's participation in paid work. The report examines the contribution that social partnership in Ireland has made to the country's economic success and examines other factors which have contributed to this success, among them - CSF funding, the demographic structure, the educational system.

NO Hva er yrkesetikk?: Om sammenhengen mellom yrkes- og profesjonsdidaktikk, yrkeskunnskap og yrkesrelevant forskning.

[What is vocational didactics?: On the relation between vocational and professional didactics, vocational knowledge and vocationally relevant research]

HIIM H; HIPPE E

Universitetsforlaget

Norsk Pedagogisk Tidsskrift (Oslo) 3, 1999, 7 p.

Universitetsforlaget,

P. O. box 2959 Tøyen,

N-0608 Oslo

In this article the authors - both teachers and researchers in the field of vocational training - discuss questions arising from a new, national practical and pedagogical training programme for teachers, involving a six months' course on vocational didactics. The article discusses the relations, similarities and differences between vocational didactics, general didactics and subject-related didactics. Furthermore, the authors argue that vocational didactics must be understood and designed in close relation to knowledge development and research related to each professional field. Two questions form the basis for the discussion: 1. In what ways do vocational didactics differ from general and subject-related didactics? 2. Is there a connection between different views of vocational didactics on the one hand and different views of research on the other?

Internationalising the curriculum for vocational education: problems and possibilities.

NORDKVELLE Y; FAUSKE H

European Journal of Intercultural Studies (Basingstoke) 10/1, 1999, p. 105-121

ISSN: 0952-391X

Carfax Publishing Company,

P.O. Box 25, Abingdon,

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Fax: (44-1235) 401550,

E-mail: enquiries@carfax.co.uk,

URL: http://www.carfax.co.uk

This paper deals with the discrepancy between the stated national curricular goals for vocational education in Norway regarding the teaching of 'international co-responsibility' values to student, and the failure of the strategy for their implementation throughout the curriculum. The paper investigates possible reasons for the persistence of negative attitudes towards immigrants and development aid among students in vocational training, especially men. It also describes some of the relevant historical and sociological background of the vocational curriculum. The paper suggests that there is an urgent need to support curricular development in such a way that 'international co-responsibility' can be realised within a vocational learning context, and puts forward some ideas in this direction.

NOU 1999-17: Realkompetanse i høgre utdanning: Dokumentasjon av realkompetanse og etablering av kortere og tilpassede studieløp i høgre utdanning

[NOU 1999-17: non-formal competence in higher education: documentation of non-formal competence and establishing of shorter and adapted training]

Kirke-, utdannings- og forskningsdepartementet, KUF

Oslo: KUF, 1999, 56 p. + annexes

Akademika AS, Møllergata 17,

P.O. Box 8134 Dep, N-0033 Oslo

This green paper was prepared by a public committee, representing private industry, public authorities and social partners appointed by the Ministry of Education, Research and Church Affairs. With the aim of preparing for the planned "Competence Reform" the committee dis-



cusses the development of an arrangement for documentation of non-formal competencies, including criteria for the acknowledgement of skills, application procedures and how the system should be managed. Furthermore, the committee discusses the status of such documentation in relation to higher education, with regard to admission, credits and duration of training.

<http://odin.dep.no/nou/1999-17>

Note: Electronic text address

SE Estimation in a duration model for evaluating educational programs

BRÄNNÄS K

Umeå University. Department of Economics

Umeå: Umeå universitet 2000, 23 p.

(Umeå economic studies, 2000(521))

ISSN: 0348-1018

Umeå university,

Department of Economics,

S-901 87 Umeå, Sweden

The paper is focused on estimation techniques for evaluating an educational program in terms of e.g. the subsequent duration of unemployment or employment. This empirical work is focused on total time in employment following participation in the Swedish adult education initiative (AEI). The AEI is a five year adult education program that started in 1997 and targets primarily the adult unemployed who lack a three year secondary school education.

UK New Deal and ethnic minority participants

MOODY A

Labour Market Trends (London) 108/2, 2000, p. 77-82

ISSN: 1361-4819

ISBN: 0-11-621223-3

Stationery Office Publications Centre,

Subscriptions Department,

P.O. Box 276,

London SW8 5DT,

www.the-stationery-office.co.uk

The New Deal for young unemployed people, the Government's flagship training-for-employment programme, has been operating nationally since 1998; in that time 380,000 people aged between 18 and 24 have joined the programme, including more than 50,000 entrants from ethnic minority groups. This article describes the characteristics of the ethnic minority entrants and examines their progress through the programme and their subsequent destinations. It finds that ethnic minority participants are more likely to leave the programme in the early stages. Of those progressing to the options stage of the programme (full-time education or training, subsidised employment or environmental work), ethnic minorities are more likely to take the full-time education option. Ethnic minority participants were less likely to leave the programme for unsubsidised employment. Overall the article estimates that ethnic minority participants achieve 97 per cent of the job outcomes of white participants, although ethnic minority groups are better qualified.



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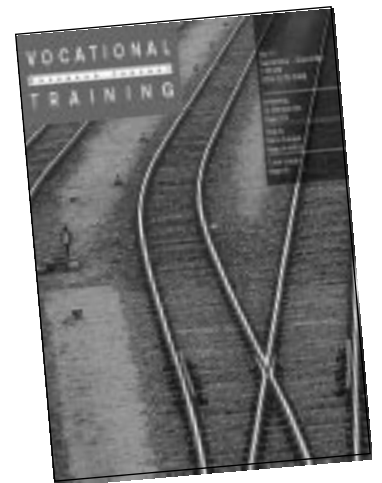
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