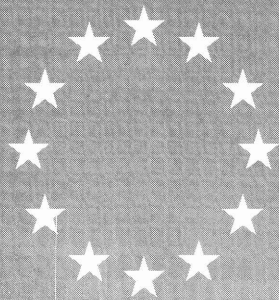


**CEDEFOP**

Nr. 1/1994

# VOCATIONAL TRAINING

E U R O P E A N J O U R N A L



**Competences:  
the word, the facts**





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CEDEFOP is a Community body established by the Council of Ministers' decision of 10.2.1975. The Centre has a Management Board in which four parties are represented; the employers, the trade unions, the national governments and the European Commission.

CEDEFOP has the task of contributing to the development of vocational training in the European Union through its academic and technical activities. The Centre responds to questions posed by the European Commission and the various groups represented on the Management Board and has the task of producing information which is relevant, concise and definitive in a Community perspective.

The Work Programme focuses on two main areas:

- trends in qualifications
- trends in training systems.

CEDEFOP uses a variety of tools to implement this programme:

- studies and analyses
- information (in a variety of forms)
- the creation of opportunities for the exchange and transfer of information.

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## Call for contributions

The Editorial Committee wishes to encourage the spontaneous contribution of articles. Articles submitted will be examined by the Editorial Committee which reserves the right to decide on publication. It will inform the authors of its decision. Articles (3 to 10 pages, 30 lines per page, 60 characters per line) should be addressed to the editors of the Journal. Manuscripts will not be returned.

The following topics are currently being prepared:

- "The development of vocational training in a European context"
- "Informal apprenticeships in the company"



# Editorial

**A new title:** The Vocational Training Journal now becomes the European Vocational Training Journal.

**An editorial committee:** to select articles and guarantee the quality of the Journal.

**One aim:** to be a platform for debate, a source of innovation to accompany and mould vocational training in Europe.

## A new Journal, why?

Vocational training plays a fundamental part in changing national economic and social systems and in European construction. The choices offered by vocational training will mould the social and economic future of each country and European construction.

Vocational training is omnipresent: in the quest for increased competitiveness, in the emergence of new forms of labour organization, new manpower management methods, in the struggle against exclusion phenomena and in social cohesion. It should reconcile the needs of the economy and democracy, of the markets and of social life.

To elucidate the choices made by stakeholders, particularly with regard to vocational training policy, the journal has a twofold mission:

□ it is necessary and possible to bring together the reflections of stakeholders and of researchers.

□ issues relating to vocational training should be placed in a context which, although surpassing it, helps to mould it. Social changes, economic trends, trends in labour markets, companies, the structure and content of employment.

Debate and reflection should not cease here. Certainly, each vocational training system has its specific nature and a coherence of its own. But their rigorous comparison and the circulation of ideas

give important impetus for reflection and for the activities of all involved.

## For whom and with whom?

The Journal addresses everyone contributing to changing vocational training. It addresses decision-makers, social partners, trainers, researchers, private and public stakeholders. It is not a journal written by specialists to address other specialists.

It is open to debate and rigorous reflection in order that readers obtain an overall view of trends in vocational training in each country in the European Union, and that they acquire a better understand-

The creation of an Editorial Committee, the decision of the CEDEFOP Management Board, marks a turning point in the life of the Journal.

Such a decision, which strengthens the role of the Journal in disseminating information from CEDEFOP, aims to continue to improve quality and to ensure openness to current debates and issues relating to vocational training in Europe.

The priorities of the Committee are to ensure the relevance of information with regard to issues the Community is facing, to ensure readability and a balance of approaches. The Committee is autonomous while respecting the guidelines set out by the Management Board.

We hope that this new phase will satisfy needs for information on vocational training at a time of great economic and social change in the Member States of the European Union.

**Ernst Piehl**

ing of the coherence of each vocational training system and can analyse the challenges confronting vocational training in Europe.

The Editorial Committee is made up of stakeholders and researchers from different countries from within the Community. It welcomes articles from a variety of sources as it does spontaneous contribu-



tions. The Journal wishes progressively to establish contacts and relations with national journals in the area of vocational training.

### **How?**

The three annual issues of the European Vocational Training Journal will contain articles drawing attention to studies and research work, to innovation or to the reflections of stakeholders.

Certain articles will permit the reader to identify the more important studies carried out in each country of the European Union and, in particular, comparative studies completed on the initiative of CEDEFOP, the European Commission, international organizations and European or foreign research teams. A number of articles will consider the reactions and opinions of stakeholders, professional organizations, trade unions, company managers, and those in responsible positions in train-

ing bodies; others will focus on specific experience. The bibliographic section will try to provide exhaustive information on comparative studies of any origin and will survey important studies in each country.

The ambitions of the Journal are high. Language differences are not the main hurdle. Lucid articles are important as the social, economic and cultural context of each reader and each author varies greatly. The Editorial Committee will be careful to ensure that each article contributes to understanding the social, cultural, economic coherence of each vocational training system.

We also wish to progress. A new summary, new presentation, a new bibliographical section in this issue is but an initial stage. It remains for the reader to monitor, to help and to express his opinion on our efforts.

**The Editorial Committee**



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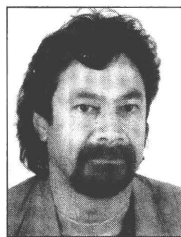
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# From qualification to competence: what are we talking about?



**Peter Grootings**

*Project coordinator,  
CEDEFOP Berlin*

It has become very popular recently in Europe to talk about "competence". However, people do not necessarily talk about the same thing when they use the same word. Thus, there is a risk that the longstanding confusion that has existed around the meaning of the concept "qualification" in various countries now will be repeated with the concept of "competence". During a series of small workshops that CEDEFOP organized in 1992 with experts from different countries, it proved to be impossible to agree on one common definition of the term.

From our experience in developing European instruments for mobility and transparency based on the concept of qualification we have learned that the meaning of qualification is embedded in the specific context of each individual national vocational education and training system. We have also learned that this meaning is dependent on how training systems relate to labour market structures, systems of industrial relations, and forms of work organization. In fact, depending on how these relations have developed in each country, we have observed that qualifications refer to either educational diplomas, characteristics of labour market categories (such as occupations), classifications in wage systems, work posts inside the enterprise, or particular combinations of these. Because of this very "societal" meaning of qualifications it has proved to be difficult, if not impossible, to develop any European instruments based on this concept.

Now, does the concept of "competence" offer better chances to develop such European instruments? Recent initiatives taken by the Commission with regard to the "portfolio of competences" seem to assume that this is indeed the case. At first sight the idea is attractive avoiding as it does all the complex implications that were connected with qualifications.

However, there remains the problem of finding agreement on a) what is exactly meant by competences and b) how they can be presented clearly and simply in a portfolio. Moreover, there still remains the question as to the purpose of having such instruments but that is another matter. Let us here simply assume that there is a need for something that would make European mobility, either in terms of education or employment, more easy. Earlier, we have referred to the problems connected with trying to establish one generally acceptable definition of competences. A recent OECD conference on the issue came up with the same conclusion. Until this problem has been solved, it does not make sense to waste energy on the more technical matters implied by the second question. In practice, however, much of the discussion has concentrated on exactly these technical questions.

Given the fact that apparently there exist many definitions of competence, CEDEFOP has tried during a second round of seminars held in 1993, to clarify **why**, **how** and **from which quarters** in different countries the concept of competence has entered the policy debates about vocational education and training. In view of the experiences with qualifications, a good understanding of the societal context in which discussions about competence have developed, seems to be a **sine-qua-non** for any attempt to develop alternative European instruments.

A first - surprising - result from these discussions was the fact that in some countries competences are indeed widely discussed but that in other countries the concept does not play a major role in the policy debates at all. A second conclusion was that there where competences were discussed, this was done so in order to solve very specific problems of national educational systems. A third conclusion was that the debates about

***Does the concept of competence offer better chances (other than those offered through qualification) for developing European instruments for mobility and transparency?***

***"... CEDEFOP has tried ... to clarify why, how and from which quarters in different countries the concept of competence has entered the policy debates about vocational education and training."***



competences were not only very country-specific but at the same time these debates also “borrowed” elements of the competence debates from other countries.

In all the EU countries there is an ongoing discussion about improving the quality of vocational education and training, in terms of making it more relevant for the labour market and the employment system. It is within this general context that the concept of competence has been introduced in some countries. This also explains the variety of meanings given to competence, since its use is directly dependent on the definition of the principal problems of national vocational education and training systems. It is also dependent on **who** defines the problems. Thus, problem setting has been and still is very national specific. International aspects normally only are taken into consideration in general terms (“international competition forces us to improve our vocational education system”), or in comparative perspective (“we have to reach European standards”), or in terms of models or tools that can be learned from. It does appear, however, that “Europeanisation” of education and training is not a major concern for national policy makers.

### *The debate in EU countries*

□ In UK, for example, the debate on competences was initially steered by the assessment issue while some of the participants argue that the real problem is the organization and support of vocational education. The competence approach is here very much output-oriented and based on assessment according to detailed standards (see the articles by Parkes and Wolf).

□ In Germany, the discussion around occupational competence is already more than 15 years old and was held in the context of despecialisation of vocational education in Germany. Here, competences are closely connected to global occupational definitions and the debate concentrates on improving the learning process (see the article by Bunk). A similar situation is to be found in Denmark.

□ In France, the discussion about competences has been initiated in a critique of traditional knowledge-oriented pedagogics in the schools and received

further momentum with the growth of further education and training of adults inside the firms. Here, most clearly a competence approach conflicts with existing structures and institutions.

□ In the Netherlands the present discussion is held within the context of a) further integration of educational streams and institutions b) decentralization of responsibility for the teaching process (and for financing) c) a dualisation of all forms of vocational education, including traditional school-based ones, and d) greater internal flexibility with more transition possibilities within the system. Competences are understood as being similar to qualifications, which in turn refer basically to diplomas and certificates.

□ In countries such as Spain and Portugal, competence is discussed in the context of developing a formal vocational education and training system. Here, one can find a combination of borrowing from the UK - in terms of developing standards for initial education; and from France - in terms of developing adult education and training in the enterprise.

From these various national debates, one can actually deduce two different types of discussion themes: one is about introducing **a competence-based approach** to vocational education and training, and a second is about adapting existing vocational education and training to the emergence of **new competences** resulting from new forms of work organization and new types of recruitment strategies of enterprises. (See on new competences the articles by Allaluf and Stroobants, Méhaut, and Ottersten). Of course, these discussions are not always independent of each other but the distinction may be useful.

It then appears that discussions about a competence-based approach are dominant in those countries where the provision of vocational education and training is weak, or where there is profound dissatisfaction with the existing system. In the first case this leads to focusing on developing standards of achievement and an orientation towards outputs. This we find most prominently in the UK. In the second case this leads rather to improving the process of education and training in order to make these more competence-





based instead of their traditional knowledge-orientation. This would be the situation in France. Countries such as Spain and Portugal, faced as they are with developing a whole “new” system of vocational education as part of the formal educational system, are then confronted with the need to both develop standards and to develop appropriate learning processes. The big question will be where they will put the emphasis.

In contrast, discussions on the need to “adapt” to new emerging competences appear to be dominant in countries that basically avail of a well developed and resourced vocational education and training system. This is the case of Germany, Denmark and the Netherlands. Here, it seems, the introduction of competence-based education is not a big issue since there is considerable consensus that the vocational education system indeed produces the competent workers that the employment system asks for. This is not to say that these countries have no problems at all, but through the involvement of social partners, on the one hand, and connected with this, through the orientation toward socially accepted occupational definitions, both the industrial relations and labour market mechanisms are in place that can guarantee a high degree of congruence between education and employment. This does not mean that the other countries are not facing the challenge of coping with new competences as is illustrated by the belated introduction of general qualifications in the UK system.

The actual discussions about improving the relationships between education and employment are distinct from earlier discussions in the sense that they are now very much marked by attempts to introduce a greater degree of flexibility on the side of the educational system. One can find this back in the attempts undertaken in the Netherlands for example to inte-

grate different subsystems of education and thus to increase the internal flexibility of educational institutions. Other examples can be found in the growing interest in modularisation of education, or in the discussions about educational vouchers, which would allow flexibility in using educational facilities over time. Discussions about flexibilisation of labour markets are of course much older. The discussions about new forms of work organization also imply the disappearance of traditional forms of work division, the blurring of demarcation lines, both horizontally and vertically, and - not least - the prospect of continuous organizational change. The relevance of the concept of “competence” also has to be understood in this context. It has become of prime importance for enterprise management to be well informed about the potentials of each individual (his/her competence) in the work force, in order to be able to develop realistic organizational strategies. It is clear that this means a growing “individualization” of human resource management inside the enterprise.

If this is so, then the implications for traditional industrial relations and labour market institutions are tremendous, based as they are on collective and institutionalized categories. Discussion of these implications have only just begun (see articles by Marsden, Allaluf and Stroobants, and the interview with Moore and Theunissen). The shift from qualification to competence at the European level therefore is much more than simply a change of wording. It is not always easy to admit that we do not yet know exactly what it does mean. But precisely because of this, it may well be much too early to try to develop at this stage “simple” technical tools. They may be technically simple but politically very complicated. The articles included in this issue of Vocational Training have been chosen to clarify some of the issues at stake.

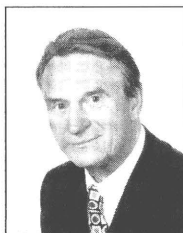
***“The shift from qualification to competence at the European level therefore is much more than simply a change of wording. It is not always easy to admit that we do not yet know exactly what it does mean. But precisely because of this, it may well be much too early to try to develop at this stage “simple” technical tools.”***



**Gerhard P.  
Bunk**

*Professor at the University of Giessen.*

*For many years a member of the REFA Association for Work Studies and Work Organization: current chairman of the committee for industrial educational science and staff development*



# Teaching Competence in Initial and Continuing Vocational Training in the Federal Republic of Germany

**The motto of the times is Change. The urgent need for economic survival has forced vocational work into radical change. Today, enterprises are increasingly trying to attain their uppermost objectives - making profit, keeping the enterprise alive, achieving the greatest possible efficiency while observing humanitarian values, securing a high market share and further development of the enterprise - through the use of new technologies, reduction in costs, product innovation, more flexible organization and more dynamic management.**

**These goals are being reached through permanent innovation in the way the business is run, together with a new social awareness amongst staff. This has consequences for the qualifications and competence of personnel and for their initial and continuing vocational training. This article defines the term vocational competence, identifies its contents and points to methodological means of teaching competences.**

## Competence

“Competence” is a term which crops up in a variety of contexts including initial and continuing vocational training. The term is used neither uniformly nor always appropriately. Competence, originally an organizational concept, regulates responsibilities for sections and departments of a state or an enterprise and empowers the respective heads or managers to make certain decisions. There is not necessarily a congruence between conveyed decision-making powers and an individual's ability to take decisions, however. A stark contrast to everyday working life where the customer calls the repair man he considers to be competent to solve his (repair) problem, i.e. has the ability to solve his problem. Not everyone who has been awarded a master craftsman's certificate and the associated formal competence enjoys the reputation of a competent specialist, however. In the above example, the crucial factor is the actual ability to solve particular problems. We should therefore distinguish between formal competence as imparted responsibility and material competence as acquired ability. Only material competence is significant in discussions on vocational education.

## Vocational competence

Ever since recognized industrial vocational training occupations developed in Germany at the beginning of the 20th century, vocational training has focused primarily on imparting “occupational abil-

ity”. Occupational ability encompasses all the knowledge, skills and abilities required to perform the defined tasks associated with specific occupations.

The term “qualification” was introduced during the general discourse on curricula in Germany in the late 1960s and has been in use in vocational education ever since. To begin with, vocational qualifications primarily encompassed all the knowledge, skills and ability required for individual occupations, but more recently the term has been expanded to include flexibility and independence on a broad occupational basis. There is a gradual departure away from specialization towards despecialization, away from dependence towards independence. The new training regulations that have been introduced for many occupations in the Federal Republic of Germany now require training enterprises to impart the demanded knowledge and skills in such a way that trainees will be able to carry out qualified occupational activities. This incorporates in particular “independent planning, execution and checking of tasks”.

In the early 1970s, the German Council for Education defined “competence” of a pupil undergoing education as the objective of the learning process in general terms, without stating what in general it meant by “competence”. It also demanded that humane and socio-political competence be imparted in addition to specialized competence using integrated learning processes. Vocational and occupational educationalists adapted the term, but saw the goal of training as meeting the technological, economic and so-



**Table 1:**  
**A comparison of occupational ability, occupational qualifications and occupational competence.**

	<b>Occupational ability</b>	<b>Occupational qualifications</b>	<b>Occupational competence</b>
<b>Occupational elements</b>	Knowledge Skills Abilities	Knowledge Skills Abilities	Knowledge Skills Abilities
<b>Scope of action</b>	Defined and founded on individual occupations	Flexibility within an occupation	Associated occupational fields and work organization
<b>Character of work</b>	Fixed operative work	Unfixed operative work	Free planning of work
<b>Organizational level</b>	Externally organized	Self-organized	Organization by the individual himself

cial changes of the current time. Just as with occupational ability and occupational qualifications, occupational competence is based on bundled knowledge, skills and abilities related to a particular occupation, but it also includes a working knowledge of associated areas as well as work organization and planning activities.

If the move from occupational ability to occupational qualification was quantitative, then the move from occupational qualification to occupational competence was qualitative, since, by including organizational and planning aspects in training, the empowerment of the traditional employee has changed significantly. Whereas impulses for action previously came down from above, they can now also come from below. The role of the competent employee has changed completely: from being 'externally organized' to being 'self-organized'.

Occupational ability, occupational qualifications and occupational competence are summarized and compared once more in Table 1 above.

What has been said above can be provisionally defined as follows: A person has occupational competence if he has the knowledge, skills and abilities he requires to carry out an occupation, if he can solve tasks independently and flexibly and is both willing and able to plan ahead in his working sphere and within work-organizational structures.

## What is meant by competence

In accordance with the Didactic Principle, the meaning of occupational competence needs to be ascertained before we can consider how competence is imparted and what methods might be used. The concept of key qualifications proposed by labour market and occupational researchers in Germany in the mid-1980s might be helpful in this respect. Labour market policy-makers realized that once specialized occupational knowledge and skills are taught, they quickly become outdated as a result of rapid advances in technology and changes in the economy. They saw the need for qualifications which do not become outdated at all or, if they do, then not so fast. Such core skills would include, amongst other things, latest and interdisciplinary knowledge and skills (e.g. foreign languages) as well as formal abilities. These include, for instance, independent thought and action, methodological flexibility and adaptability, transferability and foresighted interrelated thinking.

Social changes in the economy and society have forced occupational educators to broaden the concept of key qualifications to include the dimensions of personal and social behaviour (e.g. cooperation and teamwork). But this alone is not enough today. The rapid changes that can be observed in production, for instance in the form of lean production, have shown that improvements in work-

*"A person has occupational competence if he has the knowledge, skills and abilities he requires to carry out an occupation, if he can solve tasks independently and flexibly and is both willing and able to plan ahead in his working sphere and within work-organizational structures."*

*Social changes has caused labour educational science to extend its concept*



**Table 2: What competence means**

<b>Specialized competence</b> <i>Continuity</i>	<b>Methodological competence</b> <i>Flexibility</i>	<b>Social competence</b> <i>Sociability</i>	<b>Participatory competence</b> <i>Participation</i>
Knowledge, skills, abilities	Procedures	Modes of behaviour	Structuring methods
Inter-disciplinary elements, occupation-specific, extended vertical and horizontal knowledge about the occupation, enterprise-specific, experience-related	Variable working methods, situative solutions, problem-solving procedures, independent thinking and working, planning, executing and assessing of work, adaptability	Individual: willingness to achieve, flexibility, adaptability, willingness to work  Interpersonal: willingness to cooperate, fairness, honesty, willingness to help, team spirit	Coordinatory skills, organizational skills, combinatory skills, persuasion skills, decision-making skills, the ability to assume responsibility, leadership skills
<b>Competence to act</b>			

ing and production methods can no longer be carried out best solely by management. The scope of key qualifications has to be widened to include decision-making and planning skills.

It is in the interests of enterprises and employees themselves that the latter have the ability, for example, to develop organizational changes convincingly and take or help to take justifiable decisions.

If we want to classify on this basis the entire range of demands on personnel with respect to vocational qualifications, we find the following categories of qualifications: Specialized qualifications, methodological qualifications, personal and social qualifications and participatory qualifications. Employees with these qualifications possess the corresponding competences:

**Specialized competence** is held by those who are able to carry out activities and tasks in their field of work in a responsible and competent manner and possess the required knowledge and skills to do so.

**Methodological competence** is held by those who are able to react to problems they are set and to deviations from the norm in a manner that is appropriate, using the procedure expected, who can find solutions independently and apply experience gained to find sensible solutions to other problems.

**Social competence** is held by those who are able to work both communicatively and cooperatively with others and who show team-oriented behaviour and interpersonal understanding.

**Participatory competence** is held by those who are able to contribute towards constructing the working environment at their own workplace and beyond, can plan ahead, assume organizational tasks, take decisions and are willing to assume responsibility.

These four competences together make up the **ability to act**, which cannot, in effect, be broken down.

The contents of each competence is presented in Table 2:



## Imparting competence

If - to put it briefly - occupational competence encompasses the ability to act within an occupation, the meaning of action - as distinct from movement or being active - needs to be clarified in the context of the subject under discussion here.

From an anthropological point of view, man is a deficient being who must make his surroundings life-sustaining in order to survive. Man changes his surroundings to form a life-sustaining culture through his actions. An action is any behaviour by which man acts upon his surroundings. Actions of this nature have the following basic structure:



If one link in this chain is missing, we can no longer speak of action, since performance without thought is simply reaction, performance without perception is blind activism, perception or thought without performance merely observation or contemplation.

Man has to counteract his situation of deficiency by constantly confronting his environment - through his actions. These actions have to be learnt, since changes, whether they occur in day-to-day life, at work or in an occupation, require new ways of acting. For this reason, action-oriented learning is a necessity for initial and continuing vocational training.

In this context, it is important to clarify what we mean by pedagogical action. A learning action is pedagogically founded if it is spontaneously and actively directed at a particular goal, problem or task, if it is clearly differentiated in the perception of the various phenomena, if it combines theory and practice, planning and potential means of realization in thinking about and performing the task, if it allows scope for the individual to take decisions in his

own right and allows the individual to check his own actions and assess the results.

If such an action becomes the subject of occupational learning, we speak of it as action learning founded on occupational education. An ability to act presupposes action learning. Action learning need not be learning in isolated solutions. It can and should be tied to working situations. The actions which form part of the occupational learning process should be designed in such a way that they induce the learner to undertake self-organized action in the course of many learning processes. Learning processes, the methods by which initial and continuing vocational training are conducted, need to be analysed from this aspect.

The range of methods are broken down and described in Table 3.

Table 3 distinguishes between reaction methods and action methods. In **reaction methods**, the teacher acts and the pupil reacts. The opposite is the case in action methods: The teacher is largely passive, whereas the pupil is active. Reactive methods are appropriate when imparting basic knowledge and skills. Active methods are a must when conveying competence to act, since actions cannot be taught; they have to be learnt through actual action.

Activity methods are characterized by a complete circle of action. All methods which require the learner to apply all parts of the circle of action are deemed action methods. Teaching occupational competence and competence to act is a long process of learning and gaining experience. The learner attains competence by slowly internalizing the relevant behavioural patterns. The consequence for the behaviour of the teacher, trainer, master craftsman or adult education tutor is that he withholds his activity up to the point at which the learner, trainee, apprentice or adult undergoing continuing training is still just able to master the next learning stage on his own. From this it follows that the learner is so committed that he strives to work to the utmost of his current learning and performance ability.

Attention should be drawn to one further requirement: When talking about new

*“... occupational competence encompasses the ability to act within an occupation, ...*

*An action is any behaviour by which man acts upon his surroundings.”*



**Table 3: Methods and social forms of vocational learning.**

Reaction Methods		Action Methods	
Verbal Methods	Demonstration Methods	Behavioural Methods	Acting Methods
Lectures Dictation Teaching discussions  Development through questioning  Lessons  Language lab. Explanation Instruction	Demonstration Illustration Imitation Occasional instruction Introductory instruction	Management behaviour; Decision-making methods; Personnel development;  Speaking and discussion techniques;  Presentation techniques; Chairing techniques; Group dynamics; Self-help techniques;  Evaluation techniques (Analysis-Synthesis-Change-Evaluation)	Discovery method; Project methods; Leittext method; Technological experiments;  Development through research; Lessons;  Technical simulation; Pretend and junior companies;  Interactive learning using e.g. computers; Case study method; Business games; Role-plays;  Creative methods promoting ideas and solutions to problems;  Creative exercises;  Workshops and quality circles.
Four-step method  Combined instruction  Programmed instruction Superlearning Metaplan method Familiarization (On-the-job-training)			
<b>Social</b> forms of teaching, learning and imparting knowledge: Lecturing - Group work - Partner work - One-to-one teaching			

production methods, 'teamwork' and 'lean production' are often mentioned in the same breath. When production line work is abandoned and team or island production introduced, employees are called on to change their social behaviour significantly. Social competence has already altered in the sense mentioned above. For this reason, attention needs to be paid not only to teaching methods but also to social learning models of teaching.

Teaching and learning often take place with a teacher facing a large number of pupils. The school teaching situation is a good example of this. In contrast to this is the individual type of instruction we find when an apprentice is given instructions and then attempts to solve a

training task on his own at his workplace. A good example of this is a training workshop with its vice work stations.

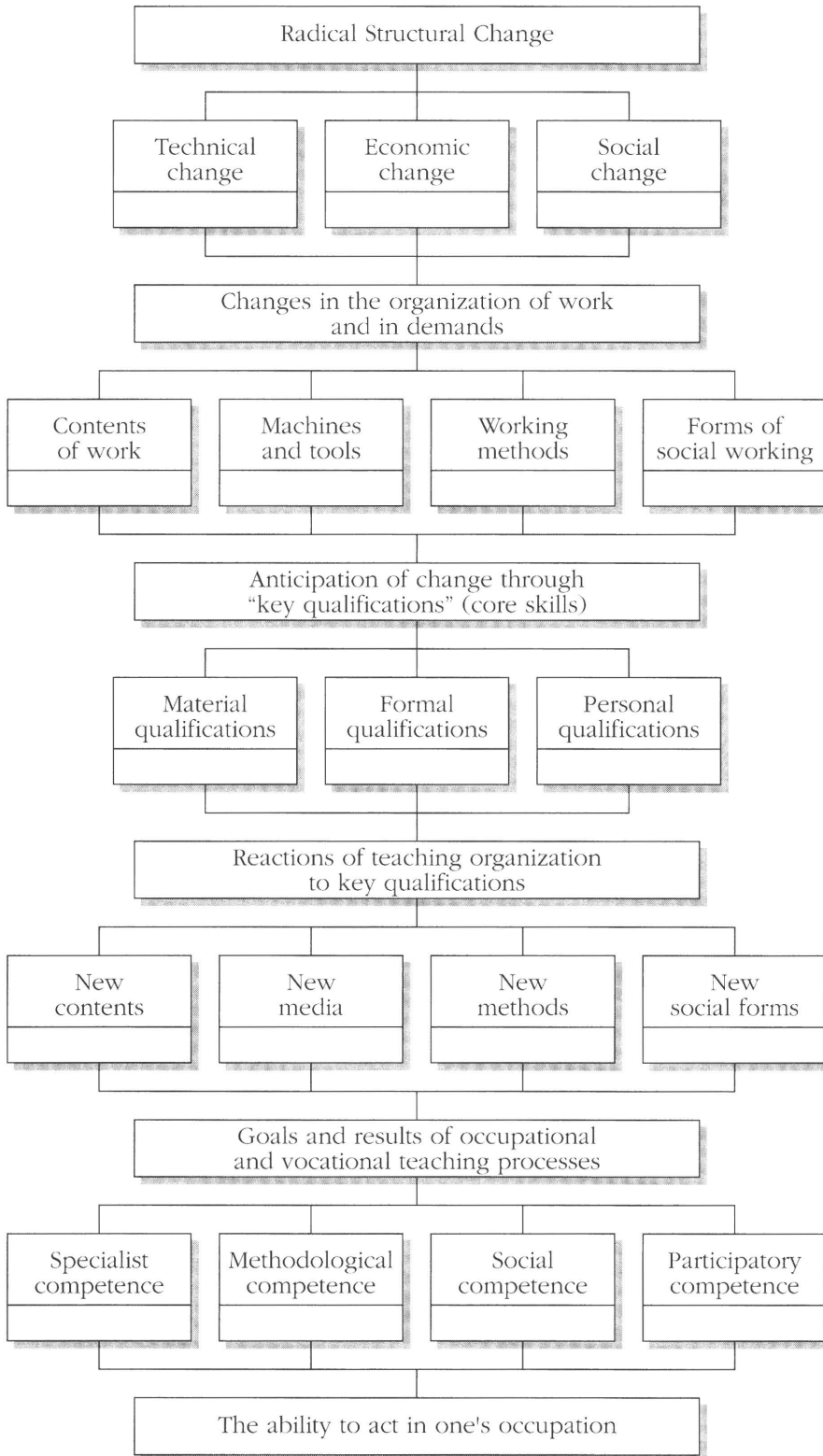
Learning to live and work as a team cannot be taught, it can only be learnt by being part of a team. The same applies to learning to work with a partner. Team- and partner-based learning are not methods. They are social forms of learning as shown in the lower part of Table 3.

### **Imparting competence - A demand of the times**

The motto of the times is Change. The urgent need for economic survival has



**Table 4: The relationship between structural change, qualifications and competence**





*“Company survival has consequences for qualifications and competence of personnel and for their initial and continuing vocational training.”*

forced vocational work into radical change. Today, enterprises are increasingly trying to attain their uppermost objectives - making profit, keeping the enterprise alive, achieving the greatest possible efficiency while observing humanitarian values, securing a high market share and further development of the enterprise - through the use of new technologies, reduction in costs, product innovation, more flexible organization and more dynamic management. These goals are being reached through permanent innovation in the way the business is run, together with a new social awareness amongst staff. This has consequences for the qualifications and competence of personnel and for their initial and continuing vocational training.

Symptoms of this change can be seen in the move from a high degree of labour division to complex mixed forms of work and teamwork, from mere operative execution of work to work requiring ad-

vance planning, from externally delegated to self-steered work, from static work processes to dynamic change, from externally organized work to personally organized work, from assessment by others to self-assessment and from responsibility being taken by others to the individual taking more responsibility. Occupational demands of this kind can no longer be met through specialized competence alone. Methodological competence, social competence and participatory competence are also required. An isolated view or even instruction does not suffice, however. The integration of all competences into an ability to act in one's occupation is called for. The process by which this is imparted begins on the first day of vocational training and in these times of change, ends only on retirement.

Table 4 gives a graphic representation of the relationship between radical change, qualifications and competences:

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*“The integration of all competences into an ability to act in one's occupation is called for. The process by which this is imparted begins on the first day of vocational training and in these times of change, ends only on retirement.”*





# Industrial change, 'competencies', and labour markets.

The attempt to reconstruct labour market skills around the concept of 'competencies in employment' is important. It is motivated by a number of changes in production systems and in labour markets. Changing patterns of competition and technical progress are generating a need for more flexible and adaptable skills. High levels of unemployment have increased the urgency for re-equipping many semi-skilled workers who missed out on the occupational and professional skills and whose narrow job-based skills are vulnerable in lay-offs. A system of recognised competencies, combining a mix of theoretical training and practical knowledge, could provide skills which are both more adaptable than those of established occupations, and more transferable than those of semi-skilled workers. At the same time, they could provide a more suitable basis for adult training. As globalisation erodes the demand for unskilled and semi-skilled labour in the traded sectors of advanced industrial economies (Wood 1994), it becomes urgent to look for ways to upgrade labour force skills.

Such a model has many attractions, but what is less often recognised is that competency-based models of skills depend upon suitable incentives for workers to undertake training and for firms to provide training places. If such competencies are to be transferable between firms, which is one of their main attractions in terms of the ability to redeploy labour between firms and to avoid lay-offs leading to long-term unemployment, then problems of 'free-riding' may arise. These would undermine the incentives for employers to invest. Finding a suitable regulatory framework will be central to the future success of competency-based skill systems.

This article will look first at the notion of recognised competencies and situate them in relation to existing skill systems. It then

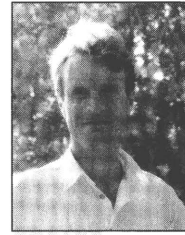
looks at the nature of the demand for more flexible, yet transferable, skills, and then explores the regulatory problems that must be solved for there to be an adequate supply of competency-based skills.

## Competencies, occupational and firm-specific skills.

The competency based approach to skill formation involves defining skill status by the ability to carry out specified types of work rather than by the process through which skill is acquired, and certified (Jessup 1990). This involves practical know-how, but also some underpinning theoretical knowledge to enable it to be adapted to new and unfamiliar circumstances. The relationship between such competencies, occupational skills, and the know-how exercised in individual jobs is illustrated in Figure 1.

Occupational skills, such as those certified by apprenticeship qualifications, typically involve a broad range of theoretical and practical knowledge obtained by a mix of school-based and on-the-job training. They have had to be fairly broad so that the workers investing in them may be sure of an adequate supply of future work in a large number of firms, and so that a large enough number of employers will support them. However, their very breadth can make their adaptation to new demands more difficult.

In contrast, many internal labour market skills, especially those developed mostly by informal on-the-job training, tend to contain just the practical know-how needed to carry out rather narrowly defined jobs. This is particularly true of blue-collar jobs under organised on taylorist principles. The lack of theoretical input makes such knowledge difficult to adapt



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**The moves to reform skill systems on the basis of recognised competencies which might serve as building bricks for more encompassing skills hold out the opportunity of maintaining transferability where it already exists, and even of introducing it where it is currently very limited. However, as argued in this article, the reforms are unlikely to succeed unless suitable incentives for the different parties, and a suitable framework for cooperation among employers, and between employers and employees can be set up. Without this, the ability of European firms to adapt to economic change will be restricted, and the human cost greatly increased.**



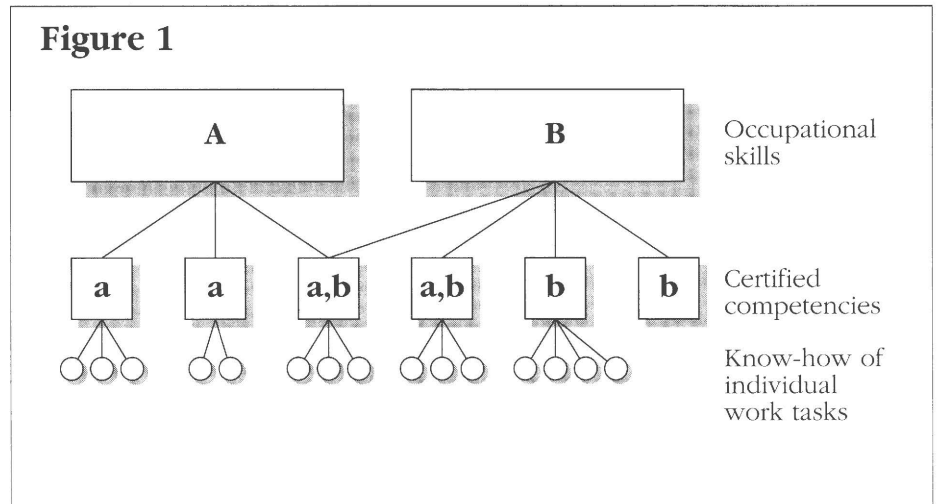
... occupational skills

firm-specific skills...

competencies

*“... the greater uncertainty for the future of both occupational and firm-specific skills creates a need for alternative concepts of skill that may be less vulnerable in periods of unemployment.”*

**Figure 1**



to a new environment so that it usually has to be 'written off' when people change jobs.

In between these two poles, lie competencies. They are of narrower scope than occupational skills, but they are more aggregated than know-how tied to individual jobs, and most important, they are intended to be transferable by virtue of their standardisation and certification.

### The demand for 'competencies'

The accelerated pace of industrial change poses a major challenge to existing systems of skill formation both for occupational skills, and for the narrower semi-skills associated with enterprise internal labour markets. The likely impact of globalisation is to favour the development of specialist market niches which place their own special demands on skills; the spread of lean production implies greater skill flexibility and at the same time destabilises established systems of semi-skilled work; and the greater uncertainty for the future of both occupational and firm-specific skills creates a need for alternative concepts of skill that may be less vulnerable in periods of unemployment.

Globalisation of markets, as expressed by the European Single Market programme, GATT, and the revolution in transport and communications means that the barriers protecting local markets are being eroded, and larger numbers of firms are now facing international competition. They can

less and less rely upon the ability to serve a narrow geographical market with goods and services identical to those provided by others in neighbouring areas. They can however survive by specialising in particular product niches, and by doing something better or more distinctively than their competitors. Competition thus shifts to providing a particular good or service better than the competition, specialising in a particular market niche.

Cappelli and Crocker-Heftler (1993) illustrate the diversity of such niches even within quite narrow economic activities across a diverse range of branches such as professional sport, retailing, business services, and food and drink. Each of the niches requires a particular range of skills from the organisation, their 'organisational competencies'. Serving a particular market niche requires competencies which are adapted to it, the basis of which are the ways firms manage their human resources. This implies success by skills differentiation rather than by standardisation according to occupational or professional norms.

Whether or not 'lean production' improves working conditions, the evidence for the car industry indicates that it has set new standards for productivity and efficiency in resources utilisation (Womack et al. 1990). As a result, many European and American producers feel compelled to adopt it for their commercial survival. Eliminating buffer stocks, and moving towards just-in-time production entail major organisational changes compared with established mass production techniques. Not the least among these con-



cerns the organisation of work, and the nature of the boundaries between jobs, and hence, between skills. Lean production requires flexible working patterns which are impossible when skills are tied to narrowly defined jobs, or strict divisions between categories of skilled work, and between skilled and semi-skilled work.

The decline in the importance of dedicated capital equipment and the rise of 'flexible specialisation' in production industries, and the spread of lean production ideas from manufacturing into private and public services through 'Total Quality Management' (TQM) mean that these organisational ideas are gradually spreading across important sectors of the economy.

They entail a shift in labour demand away from stable and standardised categories of work organisation towards more variable ones. The resulting changes in job classification systems can be seen in a number of countries. In Germany, IG Metall's 'Tarifreform 2000' involves the adaptation of job categories to more flexible working methods (Huber and Lang 1993). In France, job classification systems have also undergone considerable change away from the rigid job categories of taylorist organisation towards criteria allowing greater variability (Eyraud et al. 1989, Maurice et al. 1988a). In Britain, many firms have sought to reduce job demarcations and adopt more flexible patterns of skill utilisation and multi-skilling (Atkinson and Meager 1986).

Finally, in most countries, systems of training for occupations left semi-skilled blue and white collar workers out in the cold. They had to make do with limited opportunities for on-the-job training, and take advantage of such promotional opportunities as existed in their organisation. Such skills have always proved very fragile in times of economic restructuring as they are not transferable. Yet once workers have passed a certain age, it has usually be difficult to enter occupational training.<sup>1</sup> The accelerated pace of industrial change associated with technical change, shorter product cycles, and increased competition have made these workers very vulnerable to unemployment.

## The challenge to existing professional and internal labour market structures

The main occupational and professional labour markets in European countries have been built on stable qualifications in which young workers invest, and which firms can recruit externally. Skilled blue collar workers with widely recognised qualifications, such as apprenticeships, have a skill they can sell to many different firms, and so are not dependent on either the goodwill or the prosperity of their current employer. By adapting their work organisation so that their job vacancies match the skills available externally, employers are able to recruit workers directly from the labour market. Similar pressures apply for professional workers as the boundaries around their work roles are fairly strict in many organisations (for France see Maurice et al. (1988b), for the UK see Lam 1994).

In the case of occupational skills, there is usually a need for sharing the costs of training. Trainees are acquiring a skill they can sell to several different firms, and when they leave one firm, they take their skill with them. It is therefore difficult to expect firms to assume the full cost of training for such skills. Even with a degree of cost sharing, the net cost of apprenticeship training to British and German employers has been estimated as equivalent to about 1.5-2.5 years pay of a skilled adult (Noll et al. 1983, Jones 1986). This creates a strong incentive to some firms to cut their training programmes and to seek to 'poach' those trained by others, which further reduces the incentives for employers to fund such training. Without cost sharing, the pressures to poach are even greater. It is widely believed that the decline of apprenticeship training in Britain owed much to inadequate cost sharing and a high incidence of poaching.

Marsden and Ryan (1990) argue that such forces can be held in check. If adult workers and their unions can be effectively assured that low trainee pay will not lead to trainees being used as cheap labour, then it is easier to gain acceptance for an adequate level of cost sharing. In Germany this is achieved through the supervisory powers of works councils over

### *Transferability (of skills) and (training) cost-sharing*

1 Cost-sharing provisions with employers have entailed low trainee wages which are usually too low to people once they have family responsibilities. Since subsidised training places for older workers threaten the investments current skilled workers made in acquiring their skills such schemes have usually been resisted.



enterprise-based training. Similarly, if employers can be persuaded that their training investments will not be poached by their competitors, they will be more willing to bear a share of the cost of training for transferable skills. Again, in Germany, the chambers of industry and commerce appear to play a crucial part in monitoring rates of training, and provide a channel through which peer group pressures can discourage poaching. In view of the problems encountered with apprenticeship in Britain, it would seem that a strong regulatory framework is needed to sustain high levels of investment in transferable skills.

Likewise, investment in training in the internal labour markets of many large firms and public sector organisations depends on there being an adequate framework to ensure those involved obtain reasonable returns on their investment. Although the dangers of poaching are smaller because of the much reduced skill transferability, labour turnover nevertheless represents a loss of training investments to employers. It is therefore common for there to be rising wage and salary profiles with age or length of service in such environments. These also involve a form of cost sharing as workers start on relatively lower rates of pay, and to discourage quits, deferred pay systems are often used. For the workers involved, these also represent an investment, and for this to take place, there must be a reasonable expectation of long term employment. Among semi-skilled blue collar workers in the United States, such expectations were often backed up with seniority rules regulating job progression and lay-offs. In Western Europe, it was surely no accident that when industries needed to undergo major restructuring in the late 1960s, there was a wave of agreements and legislation on redundancies. More recently, the enhanced powers of works councils in countries such as France and Germany in questions relating to lay-offs helps to reinforce the workers' expectation that their part of the investment in firm-specific skills will be rewarded.

All of these structures have provided a stable framework for investment in training by workers and firms, and a framework for exchange between workers and their employers. Although both workers

and their employers may have a shared interest in the long term prosperity of their organisations, there are nevertheless conflicting interests over the distribution of rewards and in particular the costs of adapting to market changes. There are two critical conditions for there to be a stable market for training: workers should see a reasonable supply of jobs capable of providing a return on their investment; and, where employers bear substantial costs, there should be some control of the activities of 'free riders' who rely on poaching those trained by others. Otherwise the necessary investments will not be forthcoming. The problem is that economic change is undermining many of the established frameworks.

### **The 'dismantling' of labour market occupational categories.**

Many of the pressures of economic and technical change reviewed earlier are disrupting established patterns of investment in skill formation. The needs for multi-skilling, and for adapting and updating occupational skills are placing a great strain on established skill systems. The pace of change of demand makes the return on occupational training more uncertain, and the likelihood of the need for subsequent training greater. Because of the wide range of interested parties, occupational skills are usually slow to change<sup>2</sup> The increasing specialisation in product market niches is also likely to cause a diversification of labour demand, threatening the standardisation of job vacancies required for occupational markets to function properly. As firms seek to adapt occupational skills to their own requirements, there is a danger that the increase in non-transferable elements of skills reduce the person's ability to find alternative work in other firms. Unused occupational skills often decay, but also, skill demands in other firms are also evolving so it is not just a question of remaining in practice, but also of keeping up-to-date. The danger with piecemeal adaptation is that skilled workers only keep up to date in the way their current employer needs, so the occupation begins to fragment, and established categories of labour market exchange break up.

*"All of these structures have provided a stable framework for investment in training by workers and firms, and a framework for exchange between workers and their employers.  
... The problem is that economic change is undermining many of the established frameworks."*

2 On example of this would be the protracted negotiations in the German construction industry for the reform of its apprenticeship system (Streeck 1985).



Similar pressures apply to internal labour market skills, but the threat comes more in the form of decreased employment security as firms seek to adapt to more rapidly changing markets. The classic internal labour markets for blue collar workers were those of mass production industries which had gained control of a large and stable market segment in 'mature' industries (Piore and Sabel 1984). The classic ones for white collar workers were those of head office bureaucracies and large public sector/administrations. These all provided a stable framework within individual workers could invest in skills that were specific to their current employer. Similarly for the firms. However, these large employment units are undergoing radical change. In private sector manufacturing and services ideas of '**lean production**' are now also affecting white collar **work as layers of middle management are cut out, and similar** ideas are also beginning to enter the public sector. Thus, again, an established framework for skills investment in being broken up.

## Competencies and the need for a stable framework of exchange

The intermediate position of competencies in between occupational skills and narrow job-related skills means that some of the incentive problems associated with occupational skills should be less severe. The amount individual trainees and X employers are called upon to invest in any one recognised competence is smaller, and building up the equivalent of an occupational skill can be spread over a longer period of time, and can even be done with several different employers.

Equally, if enterprise specific job-related skills lose their attractiveness because employment in internal labour markets becomes less secure than in the past, then recognised competencies may offer a suitable compromise. With a larger expenditure than for informal on-the-job training, employees can acquire a limited skill which is recognised by other employers.

However, a system based on recognised competencies is not immune from the

kind of incentive problems which face previous types of skill organisation. These can be illustrated from Figure 1. Just like occupational skills, there is a problem of cost-sharing, albeit, potentially less serious than for apprenticeship. The simplest solution might be to use government funding to resolve such problems, but there are a number of serious problems with this. First, it might be unwise to make training decisions too vulnerable to the pressures on public spending when they should really be based on worker and employer expectations about future labour demand. Secondly, estimating the net cost of training (allowing for productive work by trainees) is notoriously difficult, and nothing more than a very rough and ready compensation for employers would be possible. Thirdly, the administrative burden would be heavy, and most important, it would remove responsibility for training investment and for making the system work from those most directly concerned. So public funding might help, but it would probably not be suitable for the whole cost.

If we turn to investment by employers, then by virtue of their intended wide recognition and transferability, competencies pose some of the same problems as apprenticeship. The employers' investment depends upon workers' decisions to remain with the firm, and on other employers not poaching. Thus, some form of cost sharing between trainees and employers seems necessary. For this to be effective, already trained workers have to be convinced that the trainees are not simply providing cheap labour. Otherwise, it is unlikely that they would cooperate in passing the practical skills onto the trainees.

If these problems cannot be resolved, employers may be unwilling to invest, but they will still need workers with the right skills. Alternatively, there will be a strong incentive for them to minimise the transferability element, and to eschew cooperation in training for recognised competencies. Two recent examples illustrate the problem.

The gap between the non-transferable job related know-how and recognised competencies is illustrated by the difficulty experienced in defining competencies in

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*... However, a system based on recognised competencies is not immune from the kind of incentive problems which face previous types of skill organisation."*

3 An official of the Construction Industry Training Board.



the British construction industry (Greenacre, 1990)<sup>3</sup>. Job-related know-how was found to be very dependent upon the context in which people worked: physical working conditions, size of construction site, size of firm, and technology used. With such variation, the relevant know-how for one employer was found to differ greatly from that for another even within fairly narrowly defined operations.

The second problem is that in transcending narrow job-related know-how which can often be obtained from 'working by Nelly' (informal instruction from an experienced worker) a certain amount of theoretical underpinning knowledge is needed. Without this it is hard to see how recognised competencies can be more than a set of memorised instructions for different operations. In their review of NVQs in the construction industry, Steedman and Hawkins (1994) found that many employers were unsympathetic to definitions of competencies which were broader than their principal needs, and were reluctant to encourage acquisition, for example, of mathematical skills.

Thus, for transferable skills, employers have little incentive to provide training beyond their immediate needs, and in particular, have little incentive to provide any training that would make the employees' work experience with them transferable.

One solution, favoured by Becker (1975), would be to make trainees pay for transferable skills, in the way that apprentices share the cost of their training by means of low rates of pay while they are being trained. Since they would be beneficiaries of the increased transparency of their skills they might be expected to share some of the cost. However, many firms may not wish their ability to equip their workforce for new commercial ventures to be constrained by their employees' ability (or willingness) to fund additional training. A system of training credits has been proposed to enable young people to afford such training (CBI 199-) which could ease some of the constraints, although this would presumably also be subject to the pressures on the public purse mentioned earlier.

The solutions so far canvassed rely very much upon market coordination through the price mechanism. Such analysis highlights the dangers to which training for transferable skills or competencies is exposed. But it offers little solace to those concerned with policy because the right proportions of cost sharing are so hard to gauge, and the system rests upon a knife edge. If the wrong proportions are established, then there is a strong danger that employers will pull out, and concentrate their efforts on training for non-transferable skills.

There is another reason for doubting a full market solution, highlighted in Wolf's article in this volume. That is, if one is seeking an exhaustive definition of equivalence of competencies, then one is quickly led to a highly bureaucratic system of rules defining all the possible sources of variation in different contexts and how these should be allowed for. This was not the spirit of apprenticeship training in Britain, nor is it that of Germany.

The missing element is that of joint regulation by employers and by employees. No rule book can provide an exhaustive definition of all the circumstances to be taken into account for full transparency. Instead, what is needed is the sort of regular contact among those concerned which can generate a customary understanding of what margins of variation are tolerable. To return to the German example, the chambers of industry and commerce create a culture within which employers understand what each other mean as concerns training needs and standards. The support of works councils and unions is also important, particularly for reassuring trainees that they are investing in skills that will continue to be valid for some time ahead, and for ensuring that a customary level of quality is adhered to.

The price mechanism can convey the incentives for the different parties, but it is less good at regulating the categories of exchange. The latter are critical to the effective functioning of a market for training.

An alternative path is not to worry about transparency, and to leave firms to develop their own notions of competencies. However, what appears to work in large Japanese firms may not prove successful

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elsewhere, and the cost of the Japanese system to employers is not always appreciated.

Womack et al. (1990), and Aoki (1988) stress the nature of the two-way exchange between Japanese firms and their workers. Flexibility within the employment relationship rests on reciprocity, and in particular on the expectation of long-term or lifetime employment. Such policies are costly to firms, and they prove their commitment to them by striving to maintain stable employment during recessions as in the current recession. If they were to engage in substantial lay-offs now, they would also be abandoning the framework for flexible working by their employees.

European firms, on the whole, offer a good deal less employment security than do their Japanese counterparts, as is illustrated in Table 1. Moreover, the statistics conceal the strength of the implicit contract between large Japanese firms and their regular employees on employment security.

consider the incentives for workers to undertake training. If their skills are tied to their current employers, then the likelihood is that they will be reluctant to invest their own resources, and they will also be resistant to employer decisions which would jeopardise their skill status, even if it is acquired by seniority. Thus, we could face both an inadequate supply of skilled labour, and undue resistance to change within firms. Lack of transferability would also worsen many of Europe's unemployment problems.

The pressures of industrial change outlined earlier all seem to point towards a progressive internalisation of skills within organisations unless there is some positive action to sustain transferability. The rapidity of change is pushing many employers to seek to adapt occupational skills by adding their own forms of additional training which are not standardised. New technologies and new organisational principles diffuse unevenly and at different speeds, so in the absence of outside help, firms have little alternative to adopt-

**Table 1. Distribution of employment by current enterprise tenure 1991**

	United States	Netherlands	Spain	United Kingdom	France	Germany	Japan
>1 year	28.8	24.0	23.9	18.6	15.7	12.8	9.8
≥ 5 years	38.3	37.6	53.7	45.0	57.6	59.0	62.6

Source: OECD 1993; Note: Germany, Japan, Netherlands 1990; Spain 1992

Thus in the absence of lifetime employment, and given the vulnerability of purely cost-based solutions to the provision of transferable skills, it seems that European countries need to concentrate on not just defining systems of recognised competencies, but also on getting the right structure of incentives and supporting institutions.

### The costs of failure

Throughout this article, great importance has been attached to the need for transferability of competencies. In the absence of a tradition of lifetime employment even in large firms in Europe, it is critical to

ing their own individual solutions. These are a threat to the transferability of occupational skills, and in the long-run are storing up problems of labour market adjustment for the future.

The pace of change is also undermining established internal labour markets for semi-skilled work, and skills based on long experience. These skills are not very transferable, and the risk is that the threat to the economic status and income levels of those concerned will reduce willingness to accept restructuring.

“The moves to reform skill systems on the basis of recognised competencies which might serve as building bricks for more encompassing skills hold out the opportunity of maintaining transferability where

*“European countries need to concentrate on not just defining systems of recognised competencies, but also on getting the right structure of incentives and supporting institutions.”*



it already exists, and even of introducing it where it is currently very limited. However, as argued in this article, the reforms are unlikely to succeed unless suitable incentives for the different parties, and a suitable framework for cooperation

among employers, and between employers and employees can be set up. Without this, the ability of European firms to adapt to economic change will be restricted, and the human cost greatly increased."

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# 'Competence' and Context: Sketching the British Scene

During the mid-1970s and early 1980s when a 'competence'-led approach was fashionable in North American VOC/TEC (vocational and technical) and Community colleges, a story circulated about a 'bag-person' (someone who carried his/her worldly possessions in a black plastic bag). The substance of the bag person's lament and the broad theme of this piece is:

*"All my life I wanted to be someone; now I know I should have been more specific".*

## The reconstruction of British Vocational Educa- tion and Training

For a variety of reasons, the preoccupation with 'competences' in North America has given way to other definitions of attainment (Unwin, 1991). However, in Britain, throughout the 1980s there has been a thoroughgoing attempt to reconstruct, along competence-based lines, the vocational education and training (VET) system. Bob Mansfield (1989) comments:

*"UK vocational education and training is based on a model of development which reverses previous approaches. Rather than design curricula to meet assumed needs, representative occupational bodies identify "occupational standards" which are clear and precise statements which describe what effective performance means in distinct occupational areas".*

John Burke (1991) elaborates this theme of deliberate reconstruction :

*"The competence-based movement is most visibly represented in the National Council for Vocational Qualifications (NCVQ) which has brought about a quiet revolution in vocational education and training. It is important to appreciate that the NCVQ network is not simply one develop-*

*ment in a series of short-lived reforms, it is a fundamental reorganisation and re-orientation in vocational education and training with major, far-reaching consequences. In comparison, previous attempts at reform in terms of new initiatives, curricula and examinations appear as "tinkering" with details in the superstructure. Originally inspired by the seminal White Paper 'A New Training Initiative' (Employment Department, 1991), and reinforced by White Papers in 1984, 1985 and 1986, NVQs involve a radical re-conceptualisation of the purposes of education and training, the needs of the individual, the technical requirement of assessment, set in the context of national needs now and well into the next century."*

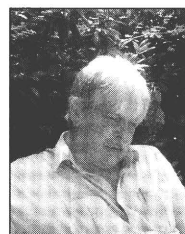
## What is a competence-led approach?

This apparent revolution has been institutionalised by the **National Council for Vocational Qualifications** (NCVQ) whose main apologist is Gilbert Jessop (1991), its Director of Research, Development and Information :

*"The most significant feature of the New Training Initiative was the introduction of a new concept of "standards"; although its significance was little understood by the reader in 1981.*

*'By specifying learning objectives in the form of outcome standards, independent of any course, programme or mode of learning it becomes possible to create a framework of such "standards" which can be adopted by any course or programme. The standards provide the unifying concept for all learning.*

*"In order that people can achieve the standards, and have their achievements*



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*European Forum on Educational Administration.*

**The purpose of the author "is not to explain the specifics of the competence-led approach in Britain but to examine the broader political, intellectual, cultural, structural, organisational and educational contexts of the British situation.**

**... It is true that many of the trends ... are world-wide rather than specifically British ... but the British example is seen as end-of-spectrum and often unrepresentative of the different traditions in medium-sized European states. Of course, this may ... be due to being ahead of the game."**

\* EIESP is an independent body working for international organisations and national governments in Western and Central Eastern Europe



recorded, the standards are "packaged" in the form of units, of credit and qualification. Qualifications, in the new system, are defined as groups of units of credit, groupings which relate to occupational requirements."

There is a mass of literature (see the bibliography in the annex), from protagonists, theorists and practitioners with a huge variety of short and long texts explaining the policy, the terminology and the politics.

It is interesting to read these in archeological layers from 1981 on as they refine the concepts, attempt to deal with problems of implementation and cope with the continual moving of the policy goal posts. (FEU 1984; Mansfield and Matthews, 1985; UDACE 1989; FESC 1989).

For the purposes of definition, I quote from "**A Guide to Work-based Learning Terms**", FE Staff College (FESC) 1989:

**Competence/occupational competence** is variously defined as:

*"The individual capacity to undertake activities requiring independent planning, implementation and self-monitoring."* (German Engineering Employers Federation, 1985).

*"The ability to use knowledge, product and process skills and as a result, act effectively to achieve a purpose."* (Hayes, 1985).

*"The possession and development of sufficient skills, knowledge, appropriate attitudes and experience for successful performance in life's roles"* (F.E.U., 1984).

*"The application of skills, knowledge and attitudes to tasks or combinations of tasks to standards under operational conditions."* (Prescott, 1985, Personal Communication)".

*"Occupational competence is the ability to perform activities in the job within an occupation to the standards expected in employment. The concept also embodies the ability to transfer skills and knowledge to new situations within the occupational area and beyond to related occupations. Such flexibility often involves a higher mastery of skill and understanding than*

*is common even among experienced employees"* (M.S.C. 1985).

*"The ability to perform in work roles or jobs to the standard required in employment"* (NCVQ, 1989).

## Why don't we embrace it as warmly as we might?

Again, it is not my purpose to explain the specifics of the competence-led approach in Britain but to examine the broader political, intellectual, cultural, structural, organisational and educational contexts of the British situation.

An unascribed quotation from a large international organisation suggests *"that the British have very seductive tools, what a pity they do not have a VET system to apply them to."*

This is unfair but it gives us two insights. The first is that there is some general 'Continental' resistance to the British approach and its missionary presence on the mainland. The second is that the British are reconstructing their system(s) and that this requires a specificity which is absent in other systems which, however adaptive, have shared internal implicit or explicit values. Consequently, it is possible to be seduced by the methodology being produced but relaxed about its (perceived) relevance to (perceived) mature and more successful systems. Resistance is largely to the intensity of the presentation of the British case and (however unlikely) its impact on the Community scene. It can also be argued that the British are ahead of the game; that the same approaches and issues are having to be - or will have to be - confronted in, say, France and Germany but are either being deferred or are less visible.

Of course, as Alison Wolf (1993) points out *"there is no such thing as a single system"* :

*"Governments find it nearly impossible to develop a coherent long-term policy - in large part because they are trying to achieve a number of quite separate objectives. They are attempting to compress into a single national system programmes*

**How to define competence?**

**Are the British ahead of the game?**



which imply very different sorts of education and training, to reconcile individual interests and ambitions with wider social concerns and to do so in a situation of inherent uncertainty about the future”.

A third and important factor for the British is not the conceptualisation of a ‘competences’ approach but its implementation in specific economic, structural and ideological contexts. For example, there is much internal debate on the narrowness of interpretation required by the Lead Bodies in the UK and the feeling that, despite the rhetoric of ‘range’, ‘broad-based’, ‘dynamic’, and ‘adaptability’ there is a danger of a structural disposition towards the ‘narrow’. Typical of such comment are :

“... occupational standards are based implicitly on a concept of competence which may be either narrow or broad in focus. The consequence of narrow or task-based standards will be a “standards” framework which will not meet the needs of a modern economy. We need instead a broad concept of competence to drive standards and associated assessment and learning systems”. (Mansfield, 1981).

“There are now clear indications of dissatisfaction among policy makers at the national level about the narrowness of the standards specified by Lead Bodies which provide the basis for NVQs”. The **Confederation of British Industry** (CBI) has ruefully noted : “The emphasis on standard-setting by separate industry bodies has not naturally led to the development of cross-structural ‘generic’ competences”. (Ibid).

## The intellectual context

The intellectual context within which the notion of ‘competence’ is to be found is subject to considerable debate. This debate takes place within theories of learning and ideas of knowledge which are somewhat sketchy. My main reference point here is a collection of papers called **‘Knowledge and Competence : current issues in training and education’** edited by Harry Black and Alison Wolf (1991). A major question is that if a certain body of knowledge is always essen-

tial for performance, why should it be listed in the ‘standards’ at all? Surely you can infer it from effective performance? But of course, it is not as simple as that. Specifically, Alison Wolf (1991) writes :

**“One very important point is that competence is a construct and not something that we can observe directly. Equally important are the various component parts of “competence” which appear in the literature, whatever the label they carry. Thus, we can actually agree that knowledge and understanding contribute to competence while being unable directly to observe or measure any one of the three.”**

She goes on to point out that conceiving of knowledge as a randomly arranged store cupboard full of facts completely violates what we know about the structure of the human mind. We should perhaps go back to Descartes who, after all, pointed out that “memory is not a cupboard but an integral part of the body itself”.

Wolf goes on :

- “1. Knowledge and understanding are not divorced from performance. It is more appropriate to see behaviour (or performance) as deriving from knowledge structures.
2. Knowledge and understanding are constructs which have to be inferred from observable behaviour just as much as competence itself.
3. Knowledge is highly contextualised. To infer knowledge with confidence, especially when it has broad applications, one needs breadth of evidence.
4. Knowledge and understanding are often (and/or) best learned ‘in use’.
5. Inferences about underpinning knowledge and understanding must be made with due caution regarding the possibility of alternative or incorrect schemata.”

This unease is reflected not only conceptually but in the approach to implementation. Haffenden and Brown (1989), talking of teachers, remark:

“In summary it can be seen that there are widely differing perceptions about the nature of competence. The lowest coherent and comprehensive view of compe-



## What is the process for certification?

- Lead Bodies representing occupational sectors draw up and present required competences, with an assessment process which has normally been designed with the help of awarding bodies;
- the awarding bodies submit their qualifications, including an assessment process, to NCVQ for accreditation;
- NCVQ accredits the qualifications submitted, for five years if they meet NCVQ criteria; the award must be based on “standards required for performance in employment”;
- accreditation allows the bodies to call their qualifications a “National Vocational Qualification” (NVQ). They pay a fee per award issued;
- awards and certificates can be given for full qualification or for individual units, each of which comprises several elements of competence;
- it is not necessary to follow a particular curriculum or course in order to obtain an NVQ. Theoretically, assessment can be made in a recognised assessment centre which might be the workplace.

*tence relates to personal competence. The advantages of such an approach are manifold, not least simply because it underlines the centrality of people. The diversity of opinion about competence in itself can be viewed as indicative of the need for a much fuller programme of staff development - not to impose a single understanding of the nature of competence, rather to get broad agreement on the overall direction the curriculum should take”. (Haffenden and Brown, 1981).*

Structurally, we can refer back to the decentralised character of the British system(s). Since there are no central standards then, in many cases there is, in fact, no existing agreement on, and familiarity with, the standards and performance criteria produced by Lead Bodies for an industry.

*“Supervisors, managers and trainers will have to learn and internalise these before localised assessment is likely to produce anything other than widely varying standards.” (Ibid.).*

## The cultural context

The competence-led approach is part of a broader context where pedagogic and curriculum issues should determine, rather than follow, resourcing and structural issues; at least, that is the question. Writing on the implications for Further Education of the 1988 Education Reform Act, Beryl Pratley (1988) comments :

*“We may break the tradition whereby resources in FE follows successful curriculum implementation and establish systems whereby resources are provided to ensure effective curriculum design, implementation and evaluation.”*

However, a major dilemma is posed by a group of practitioners reviewing four Community countries from four different occupational sectors (Gordon and Parkes, 1992). They ask :

*“Given superior processes, to what factor must poor UK outcomes be attributed?”*

Their answer lay in participation rates, in the coherence and comprehensibility of

the system, in resourcing levels and in a broader-based curricula - as well as the other factors outlined above.

The NCVQ system is a voluntary one - just one aspect of a voluntarist national negotiating stance with employers which attempts persuasion rather than legislation. This is also true of the local roles of the Training and Enterprise Councils and it is complementary to the decentralised character of the bodies awarding qualification :

*“This would, however, be of little consequence if employers had a firm commitment to human resource development.” (Raggatt, 1991).*

## Structural and organisational issues

There are two broad themes on which to recapitulate :

1. **specificity is necessary in the re-construction of a system;**
2. **the logic of implementation in a particular cultural and structural context provides a context much beyond the simple conceptualisation of the tools.**

One great advantage of the approaches to ‘competence’ in Britain is that it can bring into alignment the qualification, certification and assessment mechanisms for both initial skill training and adult training as well as penetrating both VET and Higher Education (Gordon 1993).

Burke (1991) makes a distinction between direct intervention by specific policy initiatives and by osmosis, particularly in the case of Higher Education.

“Osmosis refers to changes which seep into HE and may be seen as the rising of a response to internally recognised needs. I see osmotic changes incurring in Higher Education as a result of features of competency-based approaches being absorbed into HE, largely as a result of what is happening in terms of NVQs and parallel developments in the national curriculum”.



This at least implies a coherence across educational sectors and provides a positive glow for a future and cohesive British scenario.

Another organisational feature of the competence-led approach is its unit/credit base. **It reinforces the increasingly modular character of British provision.**

At the simplest level, a module is the breaking down of a syllabus or syllabuses into short sections that can be built up in various ways and in variously connected sequences, leading to a certification. The benefits of a modular system -or whatever kind- are felt by its protagonists to be :

- the more efficient use of resources;
- the enhancement of choice for students and flexibility in provision;
- the facility to vary the pace, timing and delivery of training;
- the capacity to be innovative;
- increased participation rates and better utilisation of facilities.

The development of a modular approach has a direct impact on curriculum management and development. The organisational elements affected are :

- financial management;
- organisational structure;
- the way in which teaching/learning are organised and then resourced;
- human resources and the way they are deployed.

But 'modules' are as widely interpretable as 'competences'. At a recent PETRA conference in Lisbon (1992) the conclusions could be roughly translated as *"We no longer know what a module is and we no longer care"*. This is a 'flip way' of analysing differentiation of definition and implementation.

For the German system, particularly, modularisation may be resisted as the thin edge of the European wedge into a Dual System providing, in initial skill training, maturation processes together with social esteem and a broad orientation towards quality.

## The political context

There is no such entity as an 'Anglo-Saxon' world but there is a perceived difference between educational systems which can be labelled as 'managed' (largely from the English-speaking world) and those labelled as 'administered'. In say, German or French systems, we would expect to see skilled professionals working within an '**administered**' system. An 'administered' system is where the key decisions of resourcing, personnel and curricula are taken outside the institution. A '**managed**' system is where the location for decision-making is **the institution** and the Principal is a '**manager**' (using the metaphor in the enterprise sense). Worldwide, at the level of the education or training institution, pressure has been towards autonomy, corporatism, 'management' and global budgets. Such pressure is accepted or resisted depending on the culture and the structure in which it is received.

The 'enterprise' metaphor, as applied to the British situation, has meant the expectation that colleges of further education be 'corporate' with bottom-line budgets and indeed managed competitively between and amongst each other.

At the same time, key decision-making and 'steering' locations are largely occupied by employers - in the Training and Enterprise Councils (TECs); in the colleges, with employers playing a predominant role in governing bodies and in the Lead Bodies for occupational sectors determining standards. The German 'social-partner' structure with the trade unions playing a substantial role alongside employers is much diminished.

The Training and Enterprise Councils, which exist at local level, are controlled not by elected representatives of central and local government but by business people nominated by the government. (Schemes for the young and long-term unemployed, previously administered by the local or regional arms of the old Department of Employment, are handled locally by the TECs. The national figure for these schemes adds up to over £1.5 billion. The government's rationale is that they are locally based and can identify clearly with the local area they serve).

*"The competence-led approach is part of a broader context where pedagogic and curriculum issues should determine, rather than follow, resourcing and structural issues; at least, that is the question."*

*"One great advantage of the approaches to 'competence' in Britain is that it can bring into alignment the qualification, certification and assessment mechanisms for both initial skill training and adult training..."*

*"... there is a perceived difference between educational systems which can be labelled as 'managed' (largely from the English-speaking world) and those labelled as 'administered'.*

*... Worldwide, at the level of the education or training institution, pressure has been towards autonomy, corporatism, 'management' and global budgets."*



The role of employers in determining the 'standards' from which competences are derived has to be seen in the larger political context. Hence, the uneasiness by commentators at needs and standards being expressed by an employer sector **without** a long tradition of investment in, and commitment to, training. Amongst the wealth of literature confirming this point is included the famous MSC/NEDO (1984) report "**Competence and Competition**" which revealed that employers in West Germany spent nearly three times as much on initial and continuing vocational education and training as did employers in the UK.

The British government has tended to follow (not necessarily successful) American examples of innovation in industry-training relationships. As Unwin (1991) points out :  
*"the Boston Compact encouraged the*

*Thatcher government in 1986 to fund, via the then Manpower Services Commission, a series of similar partnerships in urban centres in Britain, despite the warning signs from Boston that all was not well".*

The TECs themselves were inspired by the American PICs (Private Industry Councils). One has occasion to wonder whether the emulation of relatively unsuccessful North American experiments is simply a product of ministerial incapacity to cope with languages other than English/American.

It is true that many of the trends above are worldwide rather than specifically British (even the French speak in schools of 'le marketing') but the British example is seen as end-of-spectrum and often unrepresentative of the different traditions in medium-sized European states. Of course, this may again be due to being ahead of the game!

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# Measuring competence: the experience of the United Kingdom

This article is primarily concerned with recent experience in the UK, where a very particular approach to defining and measuring competences has been a cornerstone of government policy on vocational training. The lessons are, however, more general. If competences are to have any major policy relevance at national or European level, the meaning one person ascribes to a competence must be recognisably the same as another's. This means that issues of definition and measurement are fundamental.

The United Kingdom has gone further than any other country to incorporate competence-based approaches into mainstream education and training. Its experience has underlined a number of major theoretical and operational problems with the approach. Thinking in terms of competences can be a useful approach to the design of training programmes and human resource development. However, UK developments show that substituting this new language for that of more traditional qualifications will do nothing in itself to help establish mutual recognition mechanisms for individuals' skills and learning.

The ideas behind competence-based assessment, and competence-based education, as practised and preached in the UK, are essentially American in origin. (This is especially true of the English variant. As readers may be aware, England and Scotland have quite distinct education systems: and the English have adopted a more purist version of competence-based education and training than the Scots.) The literature on competence-based assessment, which appeared in Britain in the 1980s, is packed with direct echoes of US literature of ten years before. What are dramatically different are the institutional structures, which have produced very different patterns of implementation and growth in competency-based programmes. In essence, government policy

in the UK ensured the general adoption of competence-based approaches, by tying them to central government funding. In the US, localised experimental work had little or no long-term effects: - so that American advocates of the approach are now rediscovering it, in part through the British programme.

The following definition is an American one. Yet it summarises all the major features of competence-based assessment as currently advocated in the UK:

*Competence-based assessment is a form of assessment that is derived from a specification of a set of outcomes; that so clearly states both the outcomes - general and specific - that assessors, students and interested third parties can all make reasonably objective judgments with respect to student achievement or non-achievement of these outcomes; and that certifies student progress on the basis of demonstrated achievement of these outcomes. Assessments are not tied to time served in formal educational settings.<sup>1</sup>*

The three components of competence-based assessment which are especially important, and which the definition above encapsulates are:

- The emphasis on outcomes - specifically, multiple outcomes, each distinctive and separately considered
- The belief that these can and should be specified to the point where they are clear and transparent - that assessors, assesses and third parties should be able to understand what is being assessed, and what should be achieved
- The decoupling of assessment from particular institutions or learning programmes.

These characteristics define the practice of competence-based assessment. However, the emphasis on outcomes and transparency is not peculiar to the competence-based context. It is also a



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**“A competency perspective can be an invaluable aid to the trainer or educator, because it forces the system to focus on what it wishes to achieve. Tying measurement and accreditation to the notion of competency, however, quickly throws up serious problems.**

**... Certainly, at European level, competency-based measurement is no way either to paper over disagreements, or create common understandings where none already exist.”**

<sup>1</sup>Adapted from G. Grant et al On Competence: A critical Analysis of Competence-Based Reforms in Higher Education (Jossey-Bass, San Francisco, 1979) p5



**Competence - based assessment led to the development of National Vocational Qualifications (NVQs) based on standards of occupational competence.**

**(NVQs)“.. are based on the fundamental assumption that, for each industry, there exists a single identifiable model of what “competent” performance entails. ... It is ... an heroic - and a questionable - assumption.”**

defining characteristic of a rather broader theory of measurement, that of criterion-referencing. Criterion-referencing is similarly concerned with clearly specified outcomes, and with assessments that address these outcomes separately rather than dealing with pass marks or norms. It too has been a very influential approach in recent years (for example within the English National Curriculum); and it too hails conceptually from the United States. Nonetheless, competence-based and criterion-referenced assessment are not synonymous. The former involves an idea of competence which is essentially non-academic. In practice, as noted by the same American text from which our first definition was derived,

*It tends... to derive from an analysis of a prospective or actual role in modern society and...attempts to certify student progress on the basis of demonstrated performance in some or all aspects of that role. (ibid p.6)*

In other words, it is vocational in the broadest sense, and bound up with the idea of real-life performance. Indeed, in its early days in the US, performance-based assessment (and education) were the terms used more often than competence.

Competence-based assessment became important in England following the 1986 governmental Review of Vocational Qualifications. This led directly to the creation of the National Council for Vocational Qualifications, with a remit to establish an National Vocational Qualifications (NVQ) system of approved vocational awards. The review argued that “assessments carried out by many bodies do not adequately test or record the competences required in employment”, that “assessment methods tend to be biased towards the testing either of knowledge or of skill rather than of competence”, and that there are “many barriers to access arising from attendance and entry requirements”. The education sector, at this stage, was seen as essentially in opposition to needed reforms, and their objections to the proposed reforms were generally discounted.

National Vocational Qualifications (NVQs) have now been developed to cover most

sectors of employment. They derive from the activities of “lead industry bodies” which represent a given sector of industry or employment. Each such body is responsible for drawing up detailed **standards** of occupational competence. These, in turn, are used as the basis for vocational awards. No qualification will be recognised as an “NVQ” unless it is based on the standards issued by the lead industry body concerned: and government funding is tied to NVQ provision. The process of NVQ accreditation does not involve any formal discussion of curriculum (except insofar as it is implicit in the standards) or approval of learning programmes. **The assumption is that use of the standards will ensure the latter’s quality.**

As national qualifications, NVQs each cover a particular area of work, at a specific level of achievement. They are based on the fundamental assumption that, for each industry, there exists a single identifiable model of what “competent” performance entails. The idea that, for each role, there exists such an agreed notion of competence, which can be elicited and command consensus, is fundamental to any assessment system of this type. It is also, as we shall be discussing later, an heroic - and a questionable - assumption.

The structure of an NVQ is modular or “unit-based”. These units are defined as groups of “elements of competence and associated performance criteria which form a discrete activity or sub-area of competence which has meaning and independent value in the area of employment to which the NVQ relates.”(NCVQ 1991) An element of competence is a description of something which a person who works in a given occupational area should be able to do. It reflects action, behaviour or outcome which has “real meaning” in the occupational sector to which it relates. For example:

- *create, maintain and enhance effective working relationships* is an example of a management competence
- *inform customers about products and services on request* is taken from a list of financial services competences

Both share two compulsory qualities. They involve an active verb and an object





- i.e. they are performance-based - and they are not tied in any way to particular training programmes.

As expressed, both these examples are obviously very general statements indeed. Each could apply to a huge number of contexts - and to performance of very variable quality. Assessment of such competences is made concrete, in the British system, through highly specified **performance criteria**. These are the statements by which an assessor judges whether an individual can perform the workplace activity at the standard required. In effect, the performance criteria state explicit measures of outcomes. Figure 1 provides an example of an element of competence with its performance criteria.

To be accredited with a competence, a candidate must demonstrate successfully that he or she has met **every one** of these criteria. This is because competence-based assessment, as interpreted by the National Council for Vocational Qualifications, requires one-to-one correspondence with outcome-based standards. This must be comprehensive: evidence must be collected of a candidate's having met every single performance criterion. Failure to do this, it is argued, removes an essential characteristic of the system - the fact that we know exactly what someone who has been assessed can do.

It is important to emphasise this objective, because it lies at the heart of recent advocacy of competency testing. A competency-based system will, it is

expected, be far superior to traditional forms because it is so transparent, and because it delivers exactly what is described. And it can be delivered because performance criteria are so clearly defined that the assessor can describe a candidate as having unambiguously achieved (or not yet achieved) them. The requirement is thus for a one-to-one relationship between criteria and competence: and between assessment and criteria.

We have noted the assumption that assessment will be unproblematic because it simply involves comparing behaviour with the transparent "benchmark" of the performance criteria. The reality, unfortunately, is somewhat different. As a result, the short history of NVQs has also been one in which the quest for clarity has produced an ever more complex and complicated "methodology".

The second part of the paper discusses the technical reasons for this. Here we simply illustrate it by an example. The criteria in figure 2 are intended to apply to a playgroup assistant or registered childminder. Yet, as they stand, they could equally well apply to a child psychiatrist or specialised speech therapist. How does the assessor know what the standard actually is?

This lack of clarity become noticeable fairly early on - well before large numbers of NVQs were actually assessed or delivered. The response was to institute a new notion, that of the "range statement". These quickly became a compul-

*"... competence-based assessment, as interpreted by the National Council for Vocational Qualifications, requires one-to-one correspondence with outcome-based standards."*

*"... We have noted the assumption that assessment will be unproblematic because it simply involves comparing behaviour with the transparent "benchmark" of the performance criteria. The reality, unfortunately, is somewhat different. As a result, the short history of NVQs has also been one in which the quest for clarity has produced an ever more complex and complicated "methodology"."*

### Figure 1: Element of competence from level II NVQ

Identify and retrieve documents from within an established filing system

Performance criteria

- a. Specified documents are promptly located, extracted and passed to correct person or location
- b. Delays in the supply of files and/or documents are notified and reasons for delay politely explained (sic)
- c. All file and document movements are correctly recorded, up to date and legible.



sory addition to all standards. Range statements officially “describe the limits within which performance to the identified standards is expected, if the individual is to be deemed competent.” In other words, they contextualise the performance criteria, and hopefully make clear whether it is a psychiatrist or a childminder who is in question. They impose further assessment requirements: because competence must be fully assessed “across the range”. They also greatly increase the length of the documentation - sometimes taking up as much space as the performance criteria themselves.

What they failed to do, however, was to make everything clear and unambiguous. Interpretation - and measurement practice - continued to differ.

In consequence, they were rapidly followed by another compulsory addition to standards: “specifications of underpinning knowledge and understanding”. The original architects of NVQs assumed that knowledge requirements would be clearly understood by trainers and teachers on the basis of the criteria for competence. This proved optimistic. Workshops which tried to “extract” or

“induce” knowledge requirements from standards demonstrated quite quickly that the knowledge extracted was not, in fact, at all standard, but subject to very different interpretations. Formal “knowledge lists” followed. Finally, the transparency of assessment requirements came into question in its turn. Just as range and knowledge statements have been added to standards, so too have assessment requirements. Industry bodies are now expected to add lists of assessment specifications to the standards which examining and awarding bodies use.

Yet another level of detail and centralisation is thus added. The resulting standards and qualification have become huge and unwieldy documents. The apparently economical notion of competence has become exhaustively defined and constrained. In the process it becomes increasingly undeliverable and increasingly unattractive to employers as a basis for either their own training programmes or as a way of certifying employees. It also becomes increasingly questionable as a suitable approach for a world of rapid technological change and fluid job boundaries.

### **Figure 2: Performance criteria from an element of competence for a worker with young children**

Identify the language and communication abilities of an individual child

1. Observations of the child's interaction with other children and adults provide objective information about his/her spontaneous speech and communication skills
2. Activities and methods of communication are selected which encourage the child to communicate and are adapted to suit the child's interests and abilities
3. Information about the child's ability to communicate in the home setting obtained from discussion with parents is treated as confidential and used only as necessary to develop a picture of the child's language and communication skills
4. The child's hearing and understanding of stories, instructions and other communication is regularly checked by observing and interacting with the child
5. Identification of the child's language and communication abilities is based on relevant sources of information



The early American experiments on which the English programme drew similarly ended with huge volumes of unmanageable paperwork and over-detailed prescription. The contrast between the apparent simplicity and broadness of competence as a concept, and the restrictive and rigid reality is remarkable. Yet the tendency is inherent in the idea of completely transparent, unambiguous outcomes as an operational idea. It becomes inevitable if one attempts to measure competence precisely and use it as a basis for national (or international) certification and accreditation.

## The limitations of specified outcomes

There are general theoretical reasons why attempts to specify outcomes so clearly that anyone can assess them reliably are doomed to failure. Suppose, for example, that one was interested in something highly specific and abstract - far less context-dependent than the average workplace competency, and so, presumably, easier to define. A very specific mathematics skill is a good example: -say the ability to multiply whole numbers.

In the United States, where criterion-referenced tests have been most developed, the definitions of items to be used to test such skills have become extremely precise - there must be so many items, of such and such difficulty, with so many questions involving one digit (e.g.  $3 \times 2$ ), so many two-digit (e.g.  $12 \times 20$ ), and so on. And yet, having constructed such a test, can one really say, with absolute confidence, that these students can multiply double-digit numbers?. How many errors are they allowed? Would they have done as well on a different set of questions? Does  $11 \times 11$  count as the same as  $99 \times 99$ ?

Many of the performance criteria in competence-based qualifications are almost as narrow as the examples furnished by academic criterion-referenced tests. A level II NVQ in Business Administration is one of the largest NVQs in terms of entries, since it is very well suited to training and accrediting specific office skills (and one of the few NVQs

which it quite easy to assess in the workplace.) It is from this that the example in figure 1 is drawn. The range statement for this competence informs one that

*The Competence includes paper-based filing systems covering the retrieval of information from alphabetical and numerical filing systems, involving indexing systems and lateral and vertical filing methods. It requires competence in booking in and out procedures and the tracing of missing or overdue files.*

The assessment guidance adds that, if assessed outside work,

*students must demonstrate competence by dealing consecutively with a minimum of 20 items to be extracted, on a minimum of three separate occasions...A completely different set of documents must be provided for each simulated assessment.*

Yet all these additional requirements simply occasion new queries. Suppose there was a slight overlap in the documents used for assessment: - does that invalidate the assessment? Does it matter if the documents are extracted from a system containing 20 files rather than 2000? How many of them have to come from files for which document movements are actually recorded? What sort of indexing system counts? And so on...

**However precise one becomes, when one goes down this route, there is always a call for yet more definition.**

This is exactly the UK experience with NVQs. Performance criteria might mean all sorts of things - so we added range. Range can be interpreted in all sorts of ways - we add more lists. At the end of this process, and in all good faith, people can still be ascribing competence to very different behaviour.

The original claim was that individual performance...is judged against explicit standards... and (therefore) individuals know exactly what they are aiming to achieve...<sup>2</sup>. Assessment requires far less in the way of complex judgement than with the opaque criteria employed by traditional school-based or higher education.

<sup>2</sup> Fletcher, S. (1991) NVQs, Standards & Competence London: Kogan Page, p.66.



***“The inherent variability of the contexts in which competence is tested and displayed means that assessors have to make constant, major decisions about how to take account of that context when judging whether an observed piece of evidence “fits” a defined criterion.”***

In fact, nothing could be further from the truth. The inherent variability of the contexts in which competence is tested and displayed means that assessors have to make constant, major decisions about how to take account of that context when judging whether an observed piece of evidence “fits” a defined criterion. In other words, they operate with a complex, internalised, and holistic model - not a simple set of descriptors lifted from a printed set of performance indicators.<sup>3</sup>

### **The limitations of assessor judgement**

If written definitions cannot provide the required clarity, the alternative is to rely on a pre-existing consensus and understanding on the part of the assessors. The whole of competence-based assessment starts from an assumption: - that there exist standards of competence for an industry or role, and that these can be articulated through written documents. The documents do not create the standards: they articulate and clarify them to professionals. The latter understand them because of their prior knowledge and implicit understanding of what competence in their own context means. Thus the developers of standards of competence will explain that one goes on defining as long as it is necessary. You stop when everyone understands.

We have argued that standards cannot begin to provide item specifications so tight that anyone could use them to construct reliable and consistent assessments. But does this, in fact, matter? Or can a shared occupational culture make the requirements unambiguous: so that the endless spiral of specification which, we argued, was always attendant on criterion-referencing is broken by the existence of shared expertise?

It must be said that there has been very little independent evaluation of whether UK standards are implemented in any comparable or consistent way - and, indeed, that it would be rather difficult to do this at all clearly. By nature, those using them in workplaces will be dealing with very different contexts, so it is not clear how one would measure sameness

precisely. Nonetheless, one must seriously question whether it is likely even in principle that a combination of definitions and prior consensus will produce any very uniform behaviour: and also whether the assumption of pre-existing standards and shared understanding is reasonable at all. One of the examples offered by NCVQ in its guidance comes from publishing, and states that:

*Costs are minimised through forward purchase of optimum quantities and timing in relation to schedule requirements.*

Is it really likely that, industry-wide, there will be consensus on whether this has been achieved, what would be involved, or how one would recognise it?

Certainly, such evidence as exists is not terribly encouraging. Harry Black and his colleagues at the Scottish Council for Research in Education (SCRE) studied in detail the way in which a number of colleges were delivering apparently quite specific Stock Control modules within the Scottish National Certificate, which, also embodies competence-based approaches. All the departments were experienced and had close ties with local industry: and the colleges themselves assumed that the Stock Control modules would be quite easy to deliver to a common standard. In fact, however, both content and standards deviated greatly within the group.<sup>4</sup>

Compared to the National Certificate modules, NVQ developments have involved greater specification, greater restrictions on format, longer lists, tighter definitions. In research at the Institute of Education<sup>5</sup> we asked experienced college tutors and workplace supervisors to devise exercises based on very detailed specifications. In spite of the shared occupational culture of the individuals concerned, the assessment items they produced, following these specifications, proved to be very different in content. We also looked at the level of difficulty at which the assessors ascribed mastery, by asking them to administer and make judgements using a more standardised “anchor test” at the same time as they used their own. The standard at which they ascribed “competence” on this common exercise turned out to be markedly

<sup>3</sup> See e.g. Christie and Forrest 1981 *Defining Public Examination Standards* London: Macmillan; Cresswell 1987 *Describing Examination Performance* Educational Studies 13.3 ; Brehmer 1989 *Grading as a quasi-rational judgement process* in Lowyck, J & Clark, C eds. *Teacher Thinking & Professional Action* Leuven: Leuven University Press)

<sup>4</sup> Black et al 1989 *The Quality of Assessments* Edinburgh: Scottish Council for Research in Education

<sup>5</sup> Wolf A and Silver R 1986 *Work-based Learning* Sheffield: Employment Department

<sup>6</sup> Wolf A. “Authentic Assessment in a competitive sector”, in Torrance, H.ed. *Evaluating Authentic Assessment* (Buckingham: Open University Press 1994)



different implying that the underlying standard being applied to the different, and therefore not directly comparable, exercises of their own was also highly variable. Comparable results were obtained with tourist guide examiners operating out of different regional offices, even though they had mostly done their own training together, and operated an external examiner system which created some cross-region links.<sup>6</sup>

Discussions of competence-based assessment often imply that assessor judgement is only a minor issue because the assessment criteria are so minutely and clearly specified that one is well down towards the more mechanistic end of the spectrum. Nothing could be further from the truth. Workplaces vary hugely: thus any assessment process is complex, incremental, and, above all, judgmental. **It has to be because the actual performance which one observes directly, or in the form of artefacts is intrinsically variable:** one person's playing of a piano piece, one person's operations plan, is by definition not exactly the same as another's, and cannot be fitted mechanistically to either a written list of criteria, or to an example.

This point also underlines one of the problematic assumptions of UK competency measurement - an assumption which is likely to be doubly or triply problematic at European level. I noted above the assumption that standards of competence exist in some form already, and that the job of the industry bodies is to elicit and define them. This is something of a myth. In many cases, the standards are being created - and while this may, in some contexts, provide a welcome mechanism for improving industry practice, it also means that many individual firms simply do not recognise and accept what is being offered as an industry standard of competence. The further one moves from lower-level, mass occupations (retail assistants, junior chefs) the more acute the problem becomes.

A competency perspective can be an invaluable aid to the trainer or educator, because it forces the system to focus on what it wishes to achieve. Tying measurement and accreditation to the notion of competency, however, quickly throws up

serious problems. I have argued that these are not transitional or superficial, but inherent in the over-ambitious claims made for this approach. Certainly, at European level, competency-based measurement is no way either to paper over disagreements, or create common understandings where none already exist.

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# Assessment, Certification and Recognition of Occupational Skills and Competences<sup>1</sup>

**“... On the supply side we have an active labour force with degrees of adaptation to new demands, and successive cohorts of young entrants to adult life more or less prepared to meet the new flexible requirements for skill. On the demand side, we have the firms themselves whose short-term interests in remaining at existing skill levels are probably in conflict with their long-term interest in moving to a high quality equilibrium. Experience shows, that without public intervention, neither individuals nor firms are likely to be able to take the measures needed to move to a new ‘high skills/high quality’ equilibrium.**

**... The interaction of public institutions and private or firm behaviour determines the success or failure of efforts to improve economic growth through skill development.”**

<sup>1</sup> Source: Assessing, Certifying and Recognising occupational Skills and competences, OECD, Paris, 1994.

This article is based on a paper presented at a Seminar co-organised by the Portuguese Ministry on Education and the OECD, 27 - 30 October 1992 (Porto, Portugal). The seminar was part of the OECD programme on “The Changing Role of Vocational and Technical Education and Training (VOTEC)”.

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Many industrialised countries face a situation where, in a number of industrial and commercial sectors, firms need to move rapidly from the low skills/low quality equilibrium appropriate to the era of mechanisation to a new equilibrium appropriate to the era of flexible specialisation. In this process of transition, analysis of recent experience of advanced industrialised countries indicates that institutions play a key role in creating the conditions which will encourage firms and individuals to invest in training for skills. These institutional arrangements will frequently be (but not exclusively) with publicly elected or appointed authorities at local, regional or national level - or sometimes all three. Public policy which ‘oils the wheels’ or substitutes for private training activity is usually concerned with three aspects of occupational skills - legislation and financial instruments, provision of training facilities and personnel, and assessment and certification. The extent to which government should seek to maintain a monopoly position in assessment and certification is raised later in this paper.

The extent to which any society can meet the expectations of personal and career development of young people and adults is not independent of how well that same society enables its workforce to adapt to changes. Countries which adapt rapidly and successfully to the demands of new technology are not only able to offer their members higher living standards but have more resources from which to finance further development and upgrading of skills. Those countries suffering to any degree from a ‘low skills/low quality’ equilibrium will initially have fewer resources to devote to enabling individuals to develop their skills and improve their career prospects. For countries

suffering to any extent from this vicious circle of skills and quality the requirement of cost-effective management of training provision will act as a major constraint upon the extent to which certification and assessment of occupational competence can cater for a wide variety of individual needs.

## Implications of different approaches to assessment and certification

In most countries, a well-established tradition of liberal education having as its aim the development of the individual and introduction to their own culture and society will be already in place. Whereas traditionally a certain distance was maintained between the demands of the labour market and the work of teachers in schools and colleges, the increased demand for employees with good general skills and greater flexibility means that the content of educational courses for young people and their traditional modes of assessment - the written examination - are coming under greater direct scrutiny from employers, from parents concerned that school is not preparing students for today’s labour-market, and from governments concerned with national efficiency.

The written examination, externally set and marked, requiring candidates to demonstrate ability to convey understanding by means of well-constructed written answers is still the dominant mode of assessment of mainstream ‘academic’ schooling and served the purpose of identifying those qualified to proceed to the next stage of education in a fairly satisfactory way. In addition, it is claimed that employers used school examination



results to pick out potential employees with high general ability without being concerned with the exact nature of the specific skills that might be certified by the examination (screening). However, schools and colleges are increasingly called upon to teach a variety of related and specific vocational competences and, from the start of this process, it has been recognised that the formal written examination cannot adequately (validly) assess such skills. A variety of responses to this problem have been developed in OECD countries, some responses insist on students taking and passing a formal written test together with assessment of practical performance in a set piece of work by external assessors (eg. Germany). Other countries also insist on the two components of assessment of vocational skill - the written test of knowledge and the practical test of performance - but allow partial certification of the practical performance element on the grounds that an individual may be adequately skilled in their own occupational area without being able to complete the written test (eg. France). Whatever its value in conveying information about what the candidate can do (and many experts in assessment criticise all time-restricted written examinations because they reveal very little about what candidates can do outside the examination room) very few countries dispense entirely with written tests for vocational certificates. Recently, however, an innovative new system of occupational competence assessment in Britain has been introduced which assesses candidates entirely on performance and requires no written tests. The claim, which will be readily understood by those who have wrestled with these problems is that this form of assessment is more valid i.e. it tells the consumer what the person can do more effectively than a certificate based on an examination.

Many countries are experiencing the trend for a majority of young people to stay on for general or general and vocational education post-16. Their expectations are increasingly of a system which offers both choice, opportunity for progression and parity of provision. Clearly, these objectives become more problematic once it has been accepted that practical tests of performance need to form a part of vocational assessment. In many countries,

the authorities would like to offer all young people aged 18/19 the same certificate or a separate certification of equal status.

With assessment of vocational competence dependent on tests of practical performance, the traditional 'academic' assessment by examination begins to look very different from the newer performance related criterion-based testing. The case for according equal status to the two types of qualification becomes more difficult to sustain. Different countries have sought and implemented different solutions to the problem of parity of esteem for vocational and academic post-secondary qualifications. At the one extreme - as suggested above - formal examinations are insisted upon for both vocational and general academic certification. At the other - as in Britain - the form assessment takes diverges radically. Other countries have tried to blur the so-called dividing line between the academic and vocational, perhaps by introducing modular courses where students can 'pick n mix'.

General academic courses have been followed mainly by young people, and have been offered often only on a full time basis several years of continuous study. Courses leading to vocational certificates need to be made available to a much wider public, including adults returning to work and with heavy domestic responsibilities, full time mature employees and persons with very little prior formal education. This means that, if the same form of vocational certification is to be offered to all these different groups in addition to being offered to young people, assessment needs to be more flexible than that traditionally provided at the end of full-time secondary schooling. Again, small modular units may be the best vehicle for teaching and learning of vocational competence and skill and the classroom may not be the best location - the college workshop or the workplace may provide the best teaching and learning environment. In fact, the requirements of this very diverse clientele and the practical work-related subject matter may strongly imply that assessment should take place outside the school/college setting altogether and may also call into question whether full-time

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*“The further assessment moves from the educational setting, the more difficult it becomes to provide for transfer from one track to another ...”*

teachers with an academic training should undertake the examining and certification at all. In a number of countries, the assessment of vocational competence - whether of young people or of adults, takes place outside the educational setting altogether, and is carried out - in the case of Britain - by the trainee's supervisor. The further assessment moves from the educational setting, the more difficult it becomes to provide for transfer from one track to another or for progression based upon a number of units, some vocational and some academic.

The introduction of the assessment of occupational competence purely on the basis of performance in the workplace, raises the important question of whether a collection of competences 'adds up' to what is understood as 'skill'. What do we understand a skilled individual to be able to do? Do we expect the skilled individual to have at his/her disposal a body of theoretical knowledge underpinning skill and do we expect the skilled individual to be able to demonstrate that knowledge by expounding and explaining coherently to an audience either orally or in writing or both? Many would argue that the skilled craftsman can be a master of his/her trade without being able to construct a coherent sentence. On the other hand, others would maintain that, in a world of rapidly changing occupational demands, the ability to master a body of abstract knowledge and to communicate it to others is a vital skill in itself which all should be encouraged to master. The argument for requiring the individual seeking vocational certification to undergo formal examination in general subjects may rest more upon the view that such skills promote flexibility and are bound to be required in the future. The authorities in some OECD countries are obviously clearly of this view, whereas others are less convinced.

### **The role of assessment and certification in the functioning of training and labour-markets**

The ideal system of vocational certification is one which identifies for the employer the individual who fits the employer's job

requirements. If the college or worked-based training has already provided the skills needed to do a particular job, the employer saves valuable resources which would otherwise be spent on providing this training, the new employee is more productive and the employer recognises this by paying a premium (wage differential). The premium acts as a signal to potential trainees to show that investment of time and resources in this form of training pays off and they come forward for training. This, of course, is an idealised virtuous circle of certification, productivity, increased earnings and increased training effort that it is very difficult to achieve in practice. Nevertheless, recognition of the fact that certification should attest to skills that the employer needs and values underlies much of the effort that colleges, examining bodies and governing authorities invest in certification.

Some countries, whether, as a conscious policy decision, or because of the way their systems have evolved, do not provide for large-scale certification of specific occupational competences within the framework of the full-time education system. This is a view that can be justified on the grounds of the increasing relevance to modern industry and commerce of flexibility and adaptability of employees based on a high level of general education. Other countries continue to offer certification in specific occupational areas but, increasingly, the requirements of flexibility and adaptability are being built in to the design and assessment of such qualifications. It is possible that the former arrangement may be more suitable for countries with internal labour markets where firms expect to carry out training and updating of adult employees (notable examples are Japan and France), countries with more active external labour markets tend to be associated with more occupationally specific certification. However, the rapidly changing labour-market requirements of firms raise the important question of whether training for specific occupations is appropriate preparation for employment in advanced industrialised economies? Inevitably, certification is formulated on the basis of already established occupational patterns. By the time these have been institutionalised in large-scale certification arrangements the





occupations certified may no longer be needed. It may even be dysfunctional for an economy if the skills certified are modelled too closely on employers' requirements - employers themselves may be basing production on outmoded and inefficient patterns of division of labour and the output of the certification process may merely help to perpetuate these inefficiencies. All countries must therefore find ways of resolving the problem of forward planning of certification of vocational competence so as not merely to respond to industry's immediate needs but to ensure the provision of future requirements - which, by their nature, cannot be predicted with any accuracy.

OECD countries have developed a variety of strategies for confronting these problems. On one hand, we have the approach based almost exclusively on laying a good foundation of general skills (Japan) and on the other, an approach which closely involves employer and employee organisations in drawing up training programmes and supplementing them with on the job training which ensures that requirements are close to the latest needs (Germany). In between, other interesting combinations of work-based and college-based certification have been developed (eg. Netherlands, Denmark).

It has already been mentioned that, ideally, employers signal their recognition of certification by paying a premium for certificated skills. A necessary condition is that certification should be transparent and perceived to be reliable. In a number of countries, notably those with national state-validated systems of certification, employee organisations have pressed for and obtained recognition in wage grading systems of widely-recognised vocational certification. The advantages of this are, briefly, greater incentives to individuals to invest in skills and a good supply of well-qualified individuals. Disadvantages include rigidities both in labour markets and in training systems where innovation or new certification may have to be negotiated with both employer and employee representatives.

What are the factors leading to employers valuing occupational certification? It is argued above that recognition by employers of vocational competences is

easier to achieve if the certification is perceived as reliable ie. standard both over time and over the national or regional territory; if it is simple and easy to understand yet conveys the type of information that the employer seeks. It is a great virtue of many systems of national occupational certification that standards of competence certified have been maintained over time - mainly by the use of external examinations and control of syllabuses - and that employers have built up a 'picture' of what the certificate attests by familiarity with the work of those who hold it. Inevitably, the need for reliability and simplicity conflicts with the need to adapt certification to dynamic labour markets.

It is not only on entry to working life that individuals need to be persuaded to invest in training. Individuals are more likely to invest in initial training if they can see opportunities for progression beyond the initial certificate. Again, these must correspond to employers' needs and offer realistic prospects of advancement. This again means that the most successful systems of employee certification will be recognised in collective agreements while still allowing the employer discretion over whether or not to promote an employee who holds an appropriate qualification.

One important aspect of transferability is whether, in national systems of certification, vocational certification should count equally with other general educational qualifications towards a Certificate granting entry to Higher Education (University, Polytechnic). While, traditionally, the two tracks (academic and vocational) were kept separate, many countries now wish to award a single certificate giving access to jobs or Higher Education to all candidates. This means according equal weight to vocational and general academic studies. Such systems are seen as offering greater choice and flexibility to young people and consequently greater incentives to study. It is vitally important for the credibility of training institutions that the certificates they award command widespread recognition in the labour market. Certificates awarded by new and unknown awarding bodies may take many years to become established and recognised even though they certify a useful skill level. One way

***"... recognition by employers of vocational competences is easier to achieve if the certification is perceived as reliable ie. standard both over time and over the national or regional territory ..."***



***“The disadvantage of a single monopolistic provider is that there is little incentive to provide for relevance to industry’s needs.”***

of ensuring recognition across the whole of a national or regional territory is for the State to ‘underwrite’ the certificate by providing quality assurance in the shape of a state validated certificate. If, at the same time, whether by explicitly prohibiting other bodies from certifying skills or by some other use of monopolistic power, the State is effectively the only body validating vocational certificates, these will tend to gain wide acceptance in industry and commerce - sometimes for want of anything better. The disadvantage of a single monopolistic provider is that there is little incentive to provide for relevance to industry’s needs. An alternative pattern is for trade and industry bodies to set up and validate their own certificates for their own particular sector. This has the advantage of relevance but the disadvantage of being not easily transferable from one occupational sector to another. Ideally, it is in the interests of both employees and employers for certificates to be widely recognised across sectors and occupations as well as within them. A general education element common to all certificates can greatly assist transferability between sectors.

Progression within an occupation requires an extra dimension of a ladder of occupational qualifications and adequate opportunities for employees to pursue them. We should not forget the difficulty referred to above that employers are often reluctant to meet the cost of training employees to obtain certificates which would make it easier for them to move to another firm. One solution suggested in the U.K. is for employees to be required to pay back the cost of their training if they move jobs.

Even within one country, it may be useful for those awarding, gaining or trying to recognise different qualifications for an official classification system to provide equivalencies of a variety of different certificates. An example of this is the simple NVQ framework of four levels in the U.K.

Whereas countries of immigration have often developed highly effective methods of evaluating the skills of newcomers and converting their certificates to a form which will be recognised in their new homeland, European countries forming the EU have been slow to take any

concrete action to promote the ‘portability’ of vocational qualifications. At higher professional levels, some painfully negotiated agreements are now in place that allow workers (dentists, engineers) to compete on an equal with nationals of a country. Yet progress has been slower with certificates of vocational competences. It is interesting to reflect on why this should be. Almost certainly, one reason is the very different types of certification awarded in the different EC countries at the vocational (craft) level as opposed to the higher professional level.

This very great diversity in certification has been a major cause of the difficulties in reaching agreement on equivalencies in the EC. Various solutions have been proposed, first the proposal to set up a new system of ‘European’ vocational qualifications - but the cost and the difficulty of obtaining agreement (especially from those who feel they already have a good system) has been a major deterrent. Second, negotiating agreement on multilateral recognition by national governments has been proposed, and steps towards this end have been taken by the European Centre for the Development of Vocational Training (CEDEFOP). Their approach has been to identify occupations or trades in the different EC countries and to bring together employer and employee representatives together with other experts to list out the certificates which attest to competence in that trade in each EC country. Undoubtedly, this could be of use to employers, but they would need a considerable amount of expertise in comparative vocational certification to make full use of it.

In practice recent research carried out by the Task Force of the EC among European employers has suggested that many employers of other EU nationals do not wish for more information or legislation on the harmonization of vocational qualifications. Some employers had their own ways of assessing the competence of new employees from other EU states (‘We give them a 3 day trial period if they’re no good we let them go’). Overall, the view is that language differences still constitute a greater barrier to the mobility of workers in the EU than the lack of a harmonised system of vocational qualifications.



## Implementing assessment, certification and validation

In schools, colleges, work places and workshops many different 'actors' contribute to the complex tasks of assessment leading to certification. Much debate revolves around who should do the assessing. Clearly, teachers and trainers are those who best know what students can do and should therefore make an important contribution to the assessment process. In some countries teachers set examination papers and mark examinations (not their own). In other countries, teachers devise their own forms of assessment and mark their students work themselves. Difficult problems of establishing reliable standards from one school or college to another arise from this practice and 'moderators' are frequently used to help iron out inconsistencies. Students often learn better when assessment is adjusted by the teacher to their individual aptitudes and this advantage should not be lost from view. Employer and employee representatives also participate in the assessment process in some countries and this has the valuable effect of helping to ensure that assessment is reasonably relevant and in informing those in industry and commerce of what is being taught and assessed in colleges.

In some countries workplace supervisors also play a role. This can give rise to misgivings when these supervisors have themselves not been properly trained and do not fully understand their role. With proper training, as in Germany for example, this can also be a valid and motivating form of assessment. Whether the assessors are drawn from schools or industry or both, the need for consistent validation of standards is paramount. Students need to be given confidence that the certificate for which they have worked is of value and a responsible validation body is one which uses the best professional practice to ensure that proper assessment procedures are observed at all times and that the standards certified remain as comparable as possible over time and over the different occupational sectors. Often, the State is the best guarantor of standards over time but there are examples of employer and employee

representatives taking responsibility in some OECD countries and of independent bodies also fulfilling this function. One idea, which does not seem to function well is that of a 'market in qualifications' - competing bodies strive to maximise the numbers of candidates paying to enter for certificates and tend to progressively lower standards!

Different sorts of learning require appropriate assessment and practical skills will require practical tasks to be observed and assessed. Many countries have considerable experience in assessing this sort of learning in a professional manner (Netherlands, Switzerland to name but a few). Such practical assessment can be more costly than the traditional short written test but is essential to underpin any worthwhile system of certification of vocational competence.

The problem of assessing the prior learning of experienced employees recalls the need to assess skills already acquired rather than potential skills, to avoid imposing irrelevant requirements of academic education if that is going to prevent the employee receiving any certification. Prior learning can be assessed in a wide variety of ways, by project work, by self-assessment as well as by more conventional methods.

Colleges and other institutions providing assessment of vocational competences are often faced with formidable logistical problems as a result of administering many different modes of assessment for different types of students - full-time, part-time, part work-based, adults receiving accreditation of prior learning, adults on updating and retraining courses. There is a need to consider the cost in time and resources of systems of assessment which are too fragmented and individualised. There are many advantages to establishing one framework for the assessment of all these different groups in order to benefit from economies of scale.

The advantages and disadvantages of assessment of modular units and of 'pick 'n mix' systems are spelt out above. While these can greatly benefit the learner, by being more flexible and allowing greater freedom of choice, employers have a more difficult task trying to understand

*"One idea, which does not seem to function well is that of a 'market in qualifications' - competing bodies strive to maximise the numbers of candidates paying to enter for certificates and tend to progressively lower standards!"*



such qualifications in terms of what the student can do. It was pointed out earlier that employers generally favour a simple certificate outlining the level and type of occupational skill acquired. If modules have to be listed in exhaustive detail, information overload can result and the qualification may not receive the recognition from employers that it deserves.

The advantages and disadvantages of a system of 'competence-based' assessment are spelt out. It can be recalled here that assessing competence on the basis of observation of an individual performing a task relies heavily on the assessor interpreting the criteria laid down for performance correctly. Great variability can result from different interpretations of the criteria. The competences assessed do not necessarily add up to a skill - which may be assessed by more informal methods - oral interview, continuous assessment over time. The competences may be backward-looking - to occupations as they were when the list of competences was drawn up rather than as they are evolving. Competence-based systems of assessment can be very effective ways of certifying skills acquired by adult employees on the job but can limit young people to mechanical tasks and fail to develop all-round potential.

### Market failure and the role of public authorities

We can summarise the situation in many industrialised countries as follows. On the supply side we have an active labour force with degrees of adaptation to new demands, and successive cohorts of young entrants to adult life more or less prepared to meet the new flexible requirements for skill. On the demand side, we have the firms themselves whose short-term interests in remaining at existing skill levels are probably in conflict with their long-term interest in moving to a high quality equilibrium. Experience shows, that without public intervention, neither individuals nor firms are likely to be able to take the measures needed to move to a new 'high skills/high quality' equilibrium. Public intervention cannot be random and spontaneous; it must operate

on the basis of a defined strategy systematically implemented and open to public scrutiny. The interaction of public institutions and private or firm behaviour determines the success or failure of efforts to improve economic growth through skill development.

### Relevance and quality assurance

Certificates should attest to relevant skills if employers are to recognise them. A single, usually a publicly-controlled body is an efficient way of ensuring a simple stable and reliable system of certification. However, because, by its nature, a public body attempts to provide for the whole of a national or regional territory, and because of the inertia built in to other associated arrangements of teaching and assessing, such bodies may find it hard to determine relevant occupational skills and equally hard to adjust assessment and certification rapidly enough. Furthermore, public bodies may effectively be in the position of a monopoly provider. In some systems, and particularly in those where occupational skill certificates are acquired largely through full-time college based courses, public authorities appear to have tacitly recognised this dilemma and to have decided that the costs of continually updating outweigh the benefits. They have instead concentrated on providing transferable general skills at the expense of workplace specific training. This allows the certificate to compensate for lack of relevance by increased reliability and transparency. In addition, where assessment is based on skills and knowledge acquired in college, quality assurance and the maintenance of standards over time is easier to manage. Where some or all assessment and certification is based on learning which takes place on the job, relevance is easier to achieve but there is inevitably some loss of reliability and quality assurance is more difficult and costly. A major issue then is to attempt to determine what is a realistic balance between relevant work place skills on the one hand and reliability and adequate quality assurance of assessment and certification on the other hand.

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# Does competence mobilize the worker?

Research activity is based on models which enable it to communicate with other activities. This leads to questions which direct the work of research staff and enable various kinds of scientific, ideological or political activity to meet and sometimes even to merge (Tripier, 1991: 9).

The systematic use of a new concept, able to replace those used before, should be understood against the same background. This usage directs empirical research, fuels representation and justifies political measures. Thus, the concept of competence, already full of ambiguity, takes on a new significance and encourages curiosity. It is vested with multiple functions and is gaining ground in various environments. It is gaining a hold both in research undertaken in the field of work and education and in the discussions of those concerned, and it is prompting action in the fields of employment and training.

## Matrix of an analysis

Since the 1980s, as if they sensed the need, research staff, heads of companies, trade unionists, instructors and trainers have shown pronounced interest in the concept of competence.

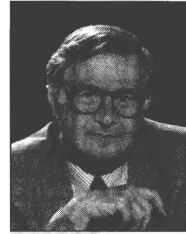
When studying the significance attached to the concept of competence it is striking to find the systematic ingredients which create a true analytical matrix within the framework of the colloquia on training and employment for example, (amongst others, Levesque, Fernandez and Chaput 1993).

Why is it necessary to promote and exploit competences in an unprecedented manner? Firstly because we are witnessing changes in the market. Consumers are becoming more demanding and consequently products must be more diversified and of better quality. By becoming

more global, competition also becomes stiffer. It no longer operates on protected and expanding markets but on stagnant, even restrained markets and, at the same time, on increasingly competitive markets. Finally, with the integration of new technologies into productions, tools are changing considerably, even changing the very nature of work. Work, in turn, is becoming increasingly complex and diversified and employment more flexible. Consequently this leads to increased demand for new competences. Thus competition, complexity and competence seem to go hand in hand.

The context in which this call for competences is made is, of course, that of crisis. But at the same time this is an environment which is characterised by a major increase in the level of school attendance. Consequently employers have access to more "human resources", resources who are better educated than ever before. Hence, companies are able to orient their human resource management to the competences of staff. On the one hand, external labour management procedures will develop aiming to recruit young people better in tune with the new circumstances to the detriment of others who, thus, will be pushed on to the fringes. All this will make jobs less secure. On the other hand, companies will thus be able to fall back on internal management procedures, to develop forward forms of labour management enabling them to anticipate and adapt competences.

All this stresses the need for new competences and the site for the acquisition of these competences is becoming more clear, too. This mainly concerns practical training which acts as a complement or supplement to school instruction. Whereas education is still criticised for being out of line with the needs of companies, alternance training is especially designed to meet this crisis. Thus, the measures advocated within the framework of employment policies and those aiming



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**"The terminological inventions are certainly numerous. Training on-the-job becomes skill-generating training, multi-skilling, skill-generating organization and skills are henceforth called competences. However, research seems to suffer from amnesia even from theoretical regression."**



to reform schools make major provision for alternance education. Vocational training, on-the-job or supplemented by short periods of training in training centres, seems to be the intermediary body which can confirm the competences of the workforce in line with the processes of production modernization.

This appeal for competence can be reduced to a simple matrix with four dimensions, the interpretation of which is, however, debatable.

1) The conditions on the market truly lead to changes in the production processes, products and work. These changes are taking place on a large scale although it is not possible to directly identify either their nature or their scope.

2) The available competences are important given the increase in the level of education of staff. Characteristically this development, which shapes the two following dimensions, is not mentioned in the call for competences.

3) The importance of work provision enables companies to develop strategies for the internal and external management of their workforces based on the level of competence. This "pressure for competence" maintains a varied landscape between companies in which human resources are intensively exploited and a labour market on which they are intensely wasted.

4) This combination of opportunities and constraints leads to increased use of on-the-job vocational training or alternance training as a way of promoting the necessary competences. Companies are encouraged to invest in training not only by way of statutory or collective bargaining provisions, but by the tension on the labour market. In fact, this tension encourages staff to place their bets on training whilst, at the same time, discouraging them from taking the risk of leaving the company which has invested in their training.

In this context competence is defined as the use and adjustment of individual training achievements, mainly school achievements, by companies depending on their needs. Henceforth, for a worker being competent means establishing his direc-

tion, getting a job, assuming responsibility and carving out his niche, i.e. being capable of meeting the needs of the company.

In a context in which work activities are defined in military terms (economic war, corporate strategy, struggle to conquer markets, etc.) the "mobilization" of competences seems to be an operation for survival and this takes on, at the same, an essential status. From case to case mobilization becomes a challenge for the company, the region, for the country or for Europe and in this way, an imperative of a higher order, the attribute of a new civic order.

### The "new" requirements

What are the "new requirements in companies" which are behind this call for competences? Put in this way, the question invites us to identify the contents of tasks in order to then define the content of training required by work tasks. This approach, which attempts to begin with the contents of work in order to define the skills of workers, is by no means new.

In France, after the war, with the first French plan, Jean Monnet raised the problem of sectors in terms of adapting employment to the restructuring needs. The second plan (1952-1957) identified the shortcomings of the skilled workforce as an obstacle to growth. However, finally the plans envisaged the regulation of school flow in line with the prospects of development for the various sectors of activity. The school flows are supposed to correspond to labour forecasts for each sector, region and occupation. Matching up the flow of certificate holders with employment forecasts was to lead to a balance, guaranteeing a balance between the jobs on offer and training given. The OECD, by developing the concept of educational planning, played a very important role in stimulating this kind of work in all industrialized countries.

Gradually, however, these attempts to balance education and employment became more widespread and the idea of adapting training flow to labour forecasts



became controversial. It was shown that models are not capable of taking account of the phenomena of occupational mobility, that the employment nomenclature which serves as the basis for forecasts is fragile and that the employment structures do not have the expected homogeneity and that sectoral forecasts largely ignore the concrete conditions for transformation of employment structures.

Furthermore, this effort to understand employment structures is rather economic in character since it completely neglects the social and institutional factors of change. Are not the developments observed in employment structures, in fact, the result of profitability constraints and also of aspirations and dissatisfaction of the parties involved, i.e. employers and workers? Thus, analysis cannot neglect the claims and strategies of employers organizations and trade unions nor the employment policies pursued by the public authorities.

Setting forecasts against observed trends has also revealed not only the technical shortcomings of forecasts but also the lack of consistency in the theoretical foundations upon which they are based. For that reason they have been increasingly abandoned. Even OECD, who was the major advocate of these approaches, has now grasped that the world of work is "incapable of forecasting future employment trends. The 1980s have seen emerging awareness of the futility of this approach. It is certainly the case that workforce planning has been challenged and attention drawn to the lack of balance between the fields of education and employment" (OECD 1992a: 10).

Did the abandoning of the problem of the balancing mechanism mean that account would be taken of the distance between the acquisition of knowledge and its use in economic activities or in multiple mediation and the complex links which separate the possession of a school certificate and the pursuit of an occupation?

It would seem that we never learn from the past. Despite the fact that the futility of the balancing mechanism approach has been recognized, as indeed has the danger of envisaging training contents in relation to job profiles and the inability of

companies to forecast their future staff needs, the OECD is, nevertheless, suggesting new goals for higher education.

According to the OECD, "economic demand" today postulates "new requirements". What are they? "They lead to an increased demand for new competences: wider, more flexible competences enabling individuals to develop in situations which are themselves flexible and fluid" (OECD, 1992a). Hence, it would be a matter of developing by way of training "fundamental aptitudes" independent of the actual content of training. These would then promote communication skills enabling individuals to cope with complex, difficult and fluid situations and increase critical appraisal and corporate spirit.

At first glance the recent work of OECD seems to be repeating the formula of links between the training system and employment after having challenged the concepts which were very much advocated in the past. First the crisis of 1968, then the major increase in unemployment since the mid-1970s and its continuance on a very high level had mainly contributed to shaking the concepts based on the "balancing mechanism".

As far as higher education is concerned, the OECD has currently made three observations. First of all, the groups undergoing higher education have become wider: it has now become a kind of education for the masses. More and more students are combining school and working life, many of them returning to study after a more or less long interruption. Furthermore, young women are currently going on to study at university level on a large scale and are even in the majority. Furthermore, there is an extension in the length of studies and a high drop-out rate. Thus, higher education has become mass education for a diversified group. It is no longer oriented solely towards a socially homogeneous group in terms of sex, age and origin, i.e. young men from the privileged middle classes.

The second observation has to do with the quantitative importance of the humanities in higher education. Given the effects of austerity policies in the major

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industrialized countries, the public sector is offering fewer and fewer openings for certificate holders, and hence they are looking towards the private sector. Now the OECD estimates that "the competence developed by the study of social sciences and the humanities will become increasingly important in working life". These studies develop a major communication potential and an "ability to deal with complex dossiers, to cope with ambiguity and complexity" (OECD, 1992b). It is the general character of these training programmes which is important and not their precise contents.

A third observation finally: given the large numbers, higher education is in a weak position vis à vis companies and employment. From this angle, the humanities occupy an extreme position. Whereas the competences which they generate are particularly sought after by employers and, although they attract large numbers of students, they are nevertheless the "weak option" in higher education. Hence, the OECD report stresses the concept of "differentiated filtering". "As long as a university has relatively low numbers, the report states, each degree tends to give elevated status and the promise of good employability on the labour market almost independent of the subjects studied and where they were studied. As soon as, however, we see a mushrooming of higher education bodies and degrees, and a large increase in the number of students, employers and others tend to consider that only the most prestigious universities, the most selective and most demanding programmes act as filters". Consequently, the report goes on "Employers are very reserved vis à vis graduates who have selected a channel which they do not consider to be selective enough" (OECD, 1992b).

We have gone full circle: its success in terms of numbers, the relevance of its courses and its performance have the effect of devaluing the status of higher education in general and the humanities in particular. But, above all, we ask ourselves on what basis the OECD finds its demands for these "new requirements" and why it is seeking to so do since it has recognized the incapacity of companies to define and forecast them.

For its part the *Task Force* "Human resources, education, training, youth", set up within the Commission of the European Communities, has instigated a vast research programme entitled "The lack of skills, future needs and their implications for education and training". The promoters of the programme do not seem to doubt the ability of companies to define and forecast their needs in terms of skilled staff. They no longer examine large-scale unemployment, particularly of graduates, which characterises the overall community. From the outset they admit that "several studies have enabled us to identify skill deficits which may even get worse in the next few years". Hence the *Task Force* has set itself the goal of identifying "quantitative and qualitative investment in education and vocational training" in line with the needs of the economy (E.C. Commission, 1992).

After a long detour, this brings us back to goals of the French plans after the war and to the attempts to plan education by the OECD in the 1960s. In fact, bit by bit, it is the same scenario for balancing training and employment which is gradually emerging.

The major changes in the production and management of jobs is bound to affect the content of occupational activities and the sense of training. First of all it is a matter of manipulating information and machines such as the materials, tools and instruments. In some cases, tasks are brought together again, in others functions are redistributed. The hunt for dead time is spreading to all phases of production and is forward looking. It is no longer a question of merely solving problems but of anticipating them. It is no longer a problem of attending to breakdowns and interruptions but of forecasting them. The formal instructions which follow the traditional hierarchical path are becoming less visible and are now incorporated into EDP programmes or transformed into collective objectives. At the same time the informal resources of those in charge are explicitly desired and are clearly on an upward trend. "The tapping of staff creativity" which was used in the past without stressing it or their knowledge is now being actively exploited. This is leading to a transformation in the status of knowledge, all human resources can be tapped.





Against this background, the "literary competence" of staff can be transformed at the same time into occupational competence.

There is one very clear and constant factor in all these developments and detours: the desire to contribute to the transparency of the labour market by establishing comparability between the national training systems. Here it is a matter of defining job profiles and then establishing skill comparability in line with the needs of the economy. To the extent that greater importance is given, on the one hand, to general training and, on the other, to the evolutionary nature of task requirements and job mobility, the concept of competence is gaining ground in terminology to the detriment of skill and the "competence portfolio" is beginning to compete with school certificates.

## Homo competens

Labour sociologists have not been immune to the craze for competences and have even made an active contribution. Hence, since the mid-1980s the concepts of skills and of competence have been very popular in research. From the outset this vocabulary led to spectacular differences in the descriptions of cases observed. Before, and more particularly in the 1970s, there was little discussion of knowledge or work aptitudes. It was rather by accident that they appeared at the time where people were still talking of Taylorism as a "war machine" capable of "stripping" workers of their skills. We have to go back to the beginning of the century, to the birth of American industrial sociology in the 1920s, to remind ourselves that it was Elton Mayo and his staff who had already detected unexpected signs of independence and organization on the part of the people carrying out the orders. The message of "human relations" has made its way in the management of these informal practices which Taylorist norms do not fully exploit. In the meantime research staff, seemingly captivated by the Ford variation on Taylorism, seem to have lost sight of the fact that prescribed work and actual work are merely the two faces of rationalization. Henceforth the revelation of the 1980s seems

simply to be a rediscovery. And if that rediscovery leads to a change in course it is because the ingredients in the matrix described above help to provide support for the opinions of research staff and those of the people who dominate the labour scene.

By stretching this even further we could caricature this kind of omnipresence in the definition of jobs in a new figure of the worker. With Taylorism it was the portrait of the *homo oeconomicus*, that is to say a rational worker guided by his interest - to maximize his pay - which was the dominant factor. With human relations it is a kind of *homo sociabilis* guided by a "logic of feeling" who emerges. Today it is the *homo competens* who is emerging, whose behaviour is motivated by enriching his competence "portfolio".

Analysis of publications in the 1980s stresses the great diversity in aptitudes and knowledge examined by the authors (Stroobants, 1993). The most frequent solution adopted to describe them involves coupling the word "ability" with all kinds of action, for example, "ability to transform", "ability to act", "ability to communicate", "ability to acquire expertise", "ability to manage", etc. At the end of that period competence itself was generally defined as an "ability to function effectively" ... "knowledge, practical skills and social skills". Beyond that very nebulous formula, unanimity amongst the approaches stopped with the message "competences are more important". We can identify various ways of adding to this comparative which corresponds to the different interpretations of the matrix which shapes them.

In line with an initial reasoning, competences are more important than before. They are one of the signs of the break, of a change in the production system.

A second reasoning postulates that competences are not necessarily more important than before but are more important than we thought<sup>1</sup>. What is this period: a thing of the past for some or poorly interpreted for others? The reference which, here and there, serves as the backdrop is the "model" of earlier years. This "Taylorism/Fordism" is envisaged as an instrument for downgrading work and

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***"Today it is the homo competens who is emerging, whose behaviour is motivated by enriching his competence 'portfolio'."***

<sup>1</sup> A third orientation aims, beyond work, at overall sociology. It examines various methodological arguments in favour of more "comprehensive" sociology. Here we find microscopic approaches centred both on interaction between "actors" and their representation. The competence of these actors (often individuals) occupies a prime position therein since they can be the source of sociological or "social" constructs. The contribution by Trépos constitutes an alternative inspired by the theory of collective bargaining (Trépos, 1992).



even for deskilling. Let us see what happens to the matrix of interpretation in the one or the other case.

### Change as the objective

This first reasoning is based on a revelation, a change in the facts. "Things" have radically changed: the production system has broken for ever with the logics of series production, competition is henceforth based on quality. The organization of work shifts to more flexible organization of production. The vertical division, the Taylorist separation between planning and implementation, is no longer given. Horizontal fragmentation, characteristic of the Ford chain, is just as antiquated. Posts and functions are restructured and combined in different ways. Henceforth work will be more abstract, more intellectual, more independent, more collective, more complex. The workshop will be "upgraded" as will the competences of its staff. Henceforth, the view will be that the theory of deskilling, which was valid before, is no longer valid today. Companies have learnt from the past, they will work towards "skill generating" training programmes and organizational forms.

In fact, against this new background, the competences "which are mobilized" will not be those which workers have acquired during training but the competences they have acquired on the job. And these are evaluated with respect to technical and organizational change. Thus, demands are determined by **assimilation**, modelled on the principles for the functioning of machinery and its adjustment. Seemingly, technologies which treat and pass on information call on intellectual skills, an ability for abstract thought, communication skills. Furthermore, decentralized but strictly articulated productions units will call for more initiative and more team spirit. This interpretation will, therefore, contribute to putting flesh on the skeleton of "knowledge" and "social skills". These very general categories will henceforth help to update job profiles and recommendations for vocational training. This brings us back, yet again, to the reasoning based on the balancing mechanism and its inherent contradictions.

### Refutation

According to this second reasoning, observers have been misled by the external signs of Taylorism. The skilled worker is not really treated as an ignorant robot. The most routine tasks call for elaborate skills. In order to grasp this point we have to look beyond appearances. Thanks to ergonomics and to cognitive psycho-sociology we are now more aware today than we were before of the importance of cognitive strategies. By challenging the restrictive definition of the Taylorist past, this second reasoning is based on signs of continuity, coming out in favour of neo-Taylorism-Fordism. The theory of deskilling here is not shaken by actuality but by awareness of work which was indeed poorly known: the underlying competences behind obvious performance.

Against this background the competences of workers are no longer defined by means of assimilation but by means of **complementarity** with the technical characteristics. The insufficiencies of the machines reveal the scale of essential skills. The non-automatable characteristics, the limits of robotics, reveal the full complexity of very down-to-earth cognitive acts. If they have not been noticed so far that is because, for us, they are "child's play".

The applications of artificial intelligence and the cognitive sciences have brought these little known competences to the surface. They can shake the traditional distinctions based on school knowledge and vocational training. They can fill in a "audit of competences", fill out a curriculum vitae or any other list of capacities to be developed. However, they do not affect the conditions for their implementation. The labour market gives value in fact to rarity to the detriment of what is generally available. How can the attributes shared by all individuals, as opposed to machines, help to justify distinctions between staff? Qualifications are not expected to recognize all competences; rather they contribute to keeping in the tacit register those competences which have no future on the labour market.

The contradictions between the two reasonings demonstrate that reality is not

<sup>1</sup> Una tercera orientación contemplada, más allá del trabajo, la sociología en su conjunto. Recupera argumentos metodológicos dispersos en favor de una sociología más "comprensiva". Volvemos a encontrar los procedimientos microscópicos centrados tanto en las interacciones entre "agentes" como en sus representaciones. La competencia de los agentes (a menudo individuos) ocupa un lugar preferente, dado que pueden ser fuente de "construcciones sociales" o sociológicas. La contribución de Trépos constituye una variante inspirada en la teoría de las convenciones (Trépos, 1992).



transparent and the way in which it is interpreted depends on the definition of "Taylorism-Fordism". All the same, these two reasonings come closer together when it is a matter of identifying the "discreet training" linked to learning associated with work organization. This is difficult both to identify and to quantify but is to be found at the heart of "skill-generating organizations". These differ from traditional on-the-job training by means of the "cognitive achievements" which are characteristic for them. Given the lower costs, these discreet forms of training are on the increase and could enter into competition with the old systems of certification. This could also lead to a new concept of careers set against the traditional hierarchical formalization. The weight of seniority and remuneration would lose in importance whereas competence would be upgraded within the framework of organization in which vertical mobility would be replaced by horizontal mobility made possible by multi-skilling.

Finally, and above all, if we can continue the analysis of these two reasonings from the angle of skills we discover one common element which is also shared by the theory of deskilling from which they wish to set themselves apart. From this angle, we face three and not two variations of the same argumentation. In these three cases, in effect, skills are deduced from the quality be it judged positive or negative of work:

- downgraded work, downgraded worker (theory of deskilling);
- upgraded work, competent worker, *therefore* skilled (change);
- skills depend on the tacit competence actually mobilized in work (refutation).

This common approach is based on the argument that skills automatically evolve from all the qualities used at work. This is exactly what people are doing who demonstrate their ability in order to have it recognized in terms of skills. But it is also because this value is the subject of negotiation that it cannot be deduced from "objective" factors.

## Naturalising occupational hierarchies

The attempt to describe what are, or should be, the skills of workers by analysing the quality of work is by no means new. Not only is it not new but it is being and has been discussed for a long time by labour sociologists.

In fact skills are a kind of procedure which lead, starting from work situations, to the regrouping of individuals and to their classification in such a way as to differentiate between them by placing them in a hierarchy (Alaluf, 1991). Of course this concept brings with it ambiguities and misunderstandings. For instance, the level of remuneration will be seen as the consequence of the quality of work whereas in the final instance "it is the scale of remuneration, which they were hoping to explain, which explains skills" (Rolle, 1988: 121).

As with remuneration, the qualification grids prepared within companies or sectors of activity are discussed, negotiated or are the object of conflict. When this is tantamount to the codification of occupational hierarchies, the skills presented in this way permit a limiting and legitimation of the arbitrary nature of work organization. The people concerned, workers and companies, each have good reasons for regularly correcting the "gap" between the agreements and what, from time to time, seems to them to be more "real". Hence, they will have a tendency to "naturalise" to a certain extent the results of these procedures. The same goes for the research staff who are wary of salary classifications which are thought to reflect the balance of power between the social partners. They will be tempted to look for more "real", more "objective" skills which are not disrupted by the bargaining which are behind the sporadic testing of strength.

It is this approach which helps us to understand the shift in the concept of skills to that of competence as an attempt to legitimise occupational qualification beyond social links, i.e. by definitively naturalising the resulting hierarchies.

Using the term competence as a synonym is the same as adopting, without an ana-

*"... helps us to understand the shift in the concept of skills to that of competence as an attempt to legitimise occupational qualification beyond social links, i.e. by definitively naturalising the resulting hierarchies."*



lytical intermediary, the rational theories of work organization. It is by attributing positions as a function of competences that Taylor designed scientific organization and that Weber defined the rational legitimacy which characterises the bureaucratic model. It suffices, consequently, to justify the position occupied by each of them.

Competence is thus seen as a means of evaluating the relevance of skills. We shall see, for example, the enhancement of the multiplicity or richness of the competences of individuals. Whether we use it as a synonym or a substitute for skills, competence is also used as proof of the skill or as a way of experiencing it. When all mediation is left aside, work is qualified by means of its content. This brings us to a situation in which we postulate "that work is a natural reality which no doubt can be recognized socially but is not primarily defined by exchange" (Rolle, 1988: 121).

It could be expected that this interest in the competences used leads to studies on how they are acquired. Now the question of identifying how the new capacities are transferred, acquired and structured are scarcely addressed. The processes which prepare these discreet forms of on-the-job training fade away in a situation which would be expected to promote them. Failing to understand the training of tacit skills or very general "social skills", competence will be equated with a single mechanism. An ability to communicate cannot, henceforth, be the result of *ad hoc* faculties, of a capacity for communication, even of "literary competence". Is there now better understanding of how they are composed? The content of work only validates competences to the extent that the job has been isolated from a wider process of socialization. Experience prior to recruitment (family background, schooling) and everything which goes beyond the work environment does not seem here to have an effect on later acquisition. In the absence of a primary process of socialization, is it necessary to consider that everything begins and ends in the company? Everything is acquired without ever being acquired since this one dimensional classification - to be or not to be competent - takes us back to variable and unforeseeable requirements.

This naturalisation of differences based on competence considerably weakens an approach which placed skills at the centre of a whole set of social factors. Beyond the narrow space pegged out by the work situation alone, Pierre Naville saw in skills "a social appreciation of the differentiation of work" (Naville, 1963: 243).

## Exploitation of competences and the precarious nature of employment

The terminological inventions are certainly numerous. Training on-the-job becomes skill-generating training, multi-skilling, skill-generating organization and skills are henceforth called competences. However, research seems to suffer from amnesia even from theoretical regression. Informal work occupies a central position in the foundations of American industrial sociology by way of the school of human relations. This concept has been developed recently in various studies. The definition of skills based on the content of work which was characteristic for a whole school of sociology has, however, been strongly challenged.

From the mid 1960s, Pierre Naville made a distinction between the operations undertaken by machines on the one hand and by the operators on the other. He advanced the theory that if the automatic machine systems led to a restructuring of what had been separate operations, the same could not be said of the operations undertaken by the operator. The mere fact of altering machines does not imply that the worker controls more or fewer operations than before (Naville, 1963)<sup>2</sup>. Automation is indeed a process for abstraction in that the worker does this on the basis of the function which he has automatically assumed. However, the use which he will make of his own ability for abstraction is not determined.

Even within the same company we can see two different models being used for numerically controlled machine tools: one which stresses training and experience acquired mechanically, the other which stresses electronic knowledge (Stroobants, 1993). The growing technicalization of activities does not necessarily lead to more

<sup>2</sup>During a recent interview Naville described his support for occupational sociology: "by studying automation I was able to distinguish between man time and machine time" (Naville, 1986: 168).



abstract work which would imply a stressing of formalization of knowledge (Alaluf, 1986). Thus, a reduction of skills to the sole dimension of competence leads to simplistic equations according to which the new technologies would lead perforce to new competences which, in turn, lead to new training.

According to Naville "there is no direct and open "objective" means of qualifying a set of posts for purely technical reasons" (Naville, 1963: 243). In fact, in no case do skills aim to fully exploit all competences. Furthermore "something which everyone has such as legs", to use Eric Hobsbawm's expression, scarcely stands a chance of being identified in terms of skills (Hobsbawm, 1990: 76). Run-of-the-mill qualities such as walking are scarcely validated in terms of qualification even if they are of major importance for the individual and his work. If the rareness of a quality or the condition - the price - of training make up the value in terms of skills, it is because the nature of the task does not permit the immediate determination of the value. Quite the contrary, this derives from an exchange, from a relation which makes it essential in predetermined social links, for work to be the counterpart of income.

Thus, the selection of competences will be part of a judgement made of its value. Authors will once again be able to deplore that the competences used in the services are little-known or downgraded whereas these tasks require systematic intelligence and relational skills in interface situations (Perret & Roustang, 1993: 139). Others will confirm, à propos fast-food, symbols of "little jobs" how much real work is more complex than prescribed work. "For each order when there is a queue at the cash desk each assistant must, so as not to be swamped, memorize the orders which he has heard coming from the other assistants and using this information develop a very subtle strategy concerning the sequence in which he will go and get his products (...). There is nothing to be gained from being faster than your neighbour because you simply attract the clients from his queue" (Piotet,

1989). The tasks do not present this transparency which would enable us to determine, objectively, a full set of competences or to infer the value of those who are acquiring them. Depending on the angle, depending on the description, the same activity may be judged good enough for a push-button or worthy of an expert operator (Stroobants, 1993).

The more the concentration on competence isolates work situations from a wider process of socialization, the greater the contrast between so-called skill-generating organizations and the precarious nature of employment. Whereas the company likes to look on the employee as someone with a task to fulfil, the employee sees his work as employment, i.e. in terms of income, status and social role. "Depending on the point of view, the worker will be in turn a source of gestures, or an individual, or a member of a group" (Rolle, 1988: 78). Thus, Rolle continues, links between individuals and work posts are not a natural reality à priori, but "are only confirmed under certain conditions by remuneration" (Rolle, 1988: 79).

Understanding work links in social relations marked by the tertiarization and the internationalization of activities, the precarious nature of employment and a growth in unemployment seems to be absolutely essential. In particular forms of job classification, the still limited procedures for the validation of occupational achievements, the links between training and employment are certainly fruitful subjects for research. They have to be protected from disembodied approaches which, stripping them of their social character, constitute retreat rather than advance in terms of knowledge. However, these models and concepts are gaining ground. Their force of conviction rests both on the chosen forms of observation, the circumstances which surround them, the measures taken and the representations which structure them. It is also true that with training and employment we are in a controversial field in which the models are overloaded with ideology.

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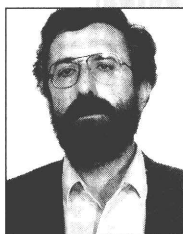


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## Organizational and political changes in training: What does this mean for competence?

**"Are changes which some companies are experiencing, leading to a different attitude to human resources: ...does the emergence of the concept of competence simply reflect this development,...**  
**The logic of competence, therefore, only concerned a (minimal) fraction of the companies and staff ..."**

The current debate in several European countries about the concept of competence can be interpreted in various ways.

Are changes which some companies are experiencing, leading to a different attitude to human resources: to a qualitatively and quantitatively different nature of the know-how and skills used, to more dynamic ideas? In this case does the emergence of the concept of competence simply reflect this development, the expression of tension between the concept of qualification, characteristic of work organization and work relations over the last forty years and the emergence of a different concept?

Is this development linked to a change in workforce production modes prompted by the education system, recording the increase in the number of people leaving school with a higher level of qualifica-

tion and prompting a shift similar to that in some countries which has led to a move away from the term education to the term training<sup>1</sup>?

Does this mean, in a context of high unemployment, that we are seeing a new transformation of company recruitment policies, registering the growth in the flow of certificate holders and enabling new selection principles (the exclusion of the un-qualified or the less-qualified could be socially criticised since it is the functioning of the school system which is then challenged. The exclusion of the "non-competent" is justified all the more easily because it takes us back to individual skills)?

All these interpretations are possible and not self-excluding. Without directly addressing the question of competence, this article has a more modest objective: to focus on the first of the three questions



by examining the shifts in the practices of mobilization and generation of skills by companies which have undergone technical organizational change on a large-scale. It also aims to stress the links between explicit and discrete training<sup>2</sup> used in the company and their role in the generation of skills.

It draws on various studies conducted within the framework of CEDEFOP on the subject of "The role of the company in skill generation: the training impact of work organization"<sup>3</sup>; macro-studies of trends affecting in nine countries the training system, the labour market, working relations; micro-studies on a sample of companies which have experienced major change with regard to the social and scientific references dominant in the country considered<sup>4</sup>.

## The knowledge required: the competence model

### New production and qualification models

One of the initial questions in the study, based on the debate and the numerous research activities concerning the impact of new production models on work, involved examining by way of the various continuing training practices the main lines for the structuring of knowledge and practical skills. The 50 companies studied present a broad spectrum of change: shift from a more or less craft stage to industrialization along Taylorist lines, re-organization with a slight Taylorist emphasis (for example, limited introduction of a certain degree of multi-skilling, semi-independent groups), up to a more radical break with organization principles, a reduction in the hierarchical levels and work prescription, and a complete restructuring of groups. The diverse nature of situations has to do with sectoral links and to the positioning on the market of products, economies of scale, varying time dimensions and their effect on a path of change (e.g. between countries such as Denmark and Portugal) and, on the other, to the socio-characteristics of the training system, labour market, classification structures. Leaving aside these factors, however, we can nevertheless identify five

main trends which affect, to varying degrees, the direction of skills depending on their intensity and combination.

□ In the direction of "production flexibility": one of the challenges is that of an ability to follow in real time the fluctuations in volume and nature affecting activities (reduction in series, development of product, infra-daily adjustments). The development in the various forms of operational multi-skilling meets this objective. It makes possible a restructuring of tasks, and the allocation of individuals throughout the production process. Our observations indicate the coexistence of elementary forms, a simple restructuring of tasks which had been segmented and more complex forms in which staff work on a family of posts (moving from machine to machine in metal processing, moving from the control room to installations in the production process, assuming responsibility for a family of products which are not very homogeneous. In the more advanced situations what we see is a real extension to the range of technical and occupational knowledge required, an extension which does not challenge by contrast the necessary mastering of a fundamental occupation.

□ A second challenge in respect of desegmentation has to do with functional borders: integration of maintenance or quality control into production, commercial activity and technical processing of files in the bank. We are, therefore, talking of multi-functionality in order to stress the extension of knowledge and skills to contents and specialities related to the basic occupation or of a different nature (e.g. linking technical banking knowledge with commercial knowledge).

□ A third set of phenomena has to do with the increase in management know-how linked on the one hand to a de-prescription of work and, on the other, to an increase in commercial constraints on production. What is desired are organizational abilities in the choice of activities, their linking up, time management and, beyond that, analysis and interpretation of complex information which has an element of business management.

□ A fourth set has to do with issues of quality and the knowledge required hav-

***"... five main trends which affect, to varying degrees, the direction of skills depending on their intensity and combination."***

<sup>1</sup> Thus, in France the term training has gradually replaced education in the debates on the link between employment and training in the 1960s and 1970s, cf. Tanguy, 1986, *L'introuvable relation formation-emploi*, Paris, La Documentation Française.

<sup>2</sup> By explicit training we mean "formalized training" based on a declared educational project. Discrete training takes in the various learning situations in the pursuit of an occupation. Two trends influence this division. On the one hand it seems that knowledge acquired during discrete training does not boil down to a simple translation of sleights of hand and "empirical" knowledge. On the other hand, the border between discrete and explicit forms is changing.

<sup>3</sup> We shall restrict ourselves to some transversal conclusions. The reader can refer to the work of each national working group and to the synthesis report for larger developments. The author would like to thank the national teams who took part in the study as well as J. Delcourt, co-author of the final report which was the inspiration for this article.

<sup>4</sup> 47 case studies were undertaken, mainly in the secondary sector (with the exception of nine banks and a commercial enterprise) and focused rather on large-scale units.



***“On re-examination of the shifts in the knowledge and practical skills used, it could be said that it is the link to the product ... in its various dimensions which is the common element.”***

ing to do with quality control and an ability to undertake the necessary corrections (machine setting, part refining).

□ Finally, a last set has to do with the development of the complex coordination of working groups, contacts between them, subject to the constraints of just-in-time. It is, therefore, a matter of mobilizing and developing communication skills via the mastery of linguistic codes used in the workshop or in the company.

### **Focusing on the commercial product**

On re-examination of the shifts in the knowledge and practical skills used, it could be said that it is the link to the product (manufactured by the company or service rendered in the case of a tertiary enterprise) in its various dimensions which is the common element.

The products, seen first as a “technical object” which registers a set of more or less rapid developments both in production technologies and in the technologies it incorporates: for example micro-electronic components in mechanical production, systematization of computer-aided setting in the publishing, diversification and sophistication of financial or insurance products in the bank.

The product then takes on a social dimension in a process of division and cooperation at work which is shifting: a tendency to form independent groups around certain production phases, moving beyond the borders of design, manufacture and maintenance, greater continuity between the sub-contractor and person placing an order. Henceforth the questions of quality, just-in-time or “competitiveness not based on costs” are becoming more apparent, cooperation is less prescribed and the division of labour rests less on a division of elementary tasks, the different dimensions of the skills mentioned above become much more decisive.

And then the product with its commercial dimension. Here it is a matter of incorporating into the technical and social handling of the product elements which have a more direct link with the market: quality and just-in-time have already been mentioned, but also optimization of pro-

duction costs, sometimes more direct links with the client. Some of the skills are moving towards this kind of knowledge: business economics, market and competitors, analysis and optimization of production parameters including costs.

### **Forms of recognition and their differentiation**

However, it would be wrong to think that the development in skills boils down to a search for completely new knowledge. Technological innovation is not the prime element in what would be a “gross” deficit amongst staff. We are also familiar with the classical difference between required work and prescribed work which reveals knowledge which is not recognized by the organization but still used, in a hidden manner, by staff in their daily work. We also know that in various countries there is no systematic link between job classification and the skills held by the individual; this often leads to the non-recognition of some of the latter. Examination of “newly” desired knowledge suggests the following typology.

□ Some of the knowledge explicitly required today proceeds from what could be termed internal recognition<sup>5</sup>: knowledge already held by some or all of the staff, this was denied in former organization but is today explicitly required. This is the case, for example, in the skills required to set up machines and knowledge required for using numerically controlled tools which staff were not allowed to use before but are encouraged to use today.

□ Another part corresponds to what we have called recognition: knowledge previously denied in the pursuit of activities is today incorporated into the desired skills. The most evident case is that of linguistic skills, communication and writing skills: denied to some staff in the daily pursuit of their work these capacities were, however, used outside the company in family and social life. The new forms of organization encourage them more strongly than before and the company integrates them into the assessment of the knowledge required, possibly moving towards specific training activities to strengthen and develop them (upgrading schemes).

***“However, it would be wrong to think that the development in skills boils down to a search for completely new knowledge.”***

<sup>5</sup> By “recognition” we mean the way in which the organization expresses in an open manner the need for certain components of the skill. This recognition does not affect remuneration or certification of the skill, this being a different issue.





□ In a third case there is an extension (by way of additionality) of the range of occupational knowledge previously tapped. Let us take a few examples: in one of the companies studied operators are not only multi-skilled they are also encouraged to become involved in improving procedures. They must master a whole set of related knowledge in respect of mechanical engineering but also in respect of electronics and hydraulics. In a second case linked to functional desegmentation they are required to take part in the diagnosis of breakdowns but also to exercise quality control directly under their own responsibility. There is, therefore, a process whereby knowledge and practical skills in the different spectrums of the fundamental occupational family are extended. This extension of the range of knowledge is not a mere addition. Some people do have the impression of losing some of their fundamental professionalism by becoming "a jack of all trades". Here we can see the limits of a "downgrading multi-skilling" which would merely be the addition of elementary tasks. However, when the extension is seen as a source of true learning, this addition also means the emergence of new individual and collective knowledge: thus in one of our cases, the collective accumulation of more in-depth knowledge of the various segments of the work process enables staff to handle and participate directly in product innovation itself, by dismantling the barriers between design and production and moving towards what is called today simultaneous engineering.

□ Finally, a last case turns the company and the work activity into a production site for truly new knowledge (for the staff but even perhaps beyond them): case of a major technological leap forward, of a combination which escapes the academic separation of the separation of occupations which corresponds to a process of creation of radically new knowledge.

All these movements in fact translate, to varying degrees, into a development in the logic of construction and encouragement of skills. In organizations which have undergone major change, the general level of staff training is on the increase. Individual and collective skills are tending to become a central principle for

the construction and flexibility of organization.

## Organizational and training paths

If we look at the training policies used, there are two particularly striking elements. First of all the accent placed on the trainer role in work situations. Then, the various combinations possible between discrete and explicit training.

### The role of discrete training

It is not possible within the framework of this article to give an exhaustive inventory of the various arrangements for the discrete acquisition of knowledge given the diverse nature of national situations and companies. We will restrict ourselves to simply assessing some major conclusions at the risk of playing down the differences.

The first is the growing importance given in the companies studied to processes for the acquisition of knowledge during work activities often by means of formalization and thus of inclusion in what we would call explicit training: recognition of a right to make mistakes and to use as potential for the accumulation of knowledge about processes of trial and error; development of kinds of tutorship and doubling-up with or without the learning specifications; utilization of simulation of work situations either through creating workshops or experimental groups or by recourse to various forms of computer-aided education; setting up ad-hoc transversal groups which would enable the circulation of knowledge between individuals or groups situated at various points in the production process (in particular design/production/sales interface, production/maintenance interface); importance attributed to what we call "human resources", more experienced staff, technicians placed in support positions vis à vis operational staff who also have a training function.

The second has to do with the nature of knowledge and practical skills transferred in this way. On the one hand it would seem that beyond what we are used to

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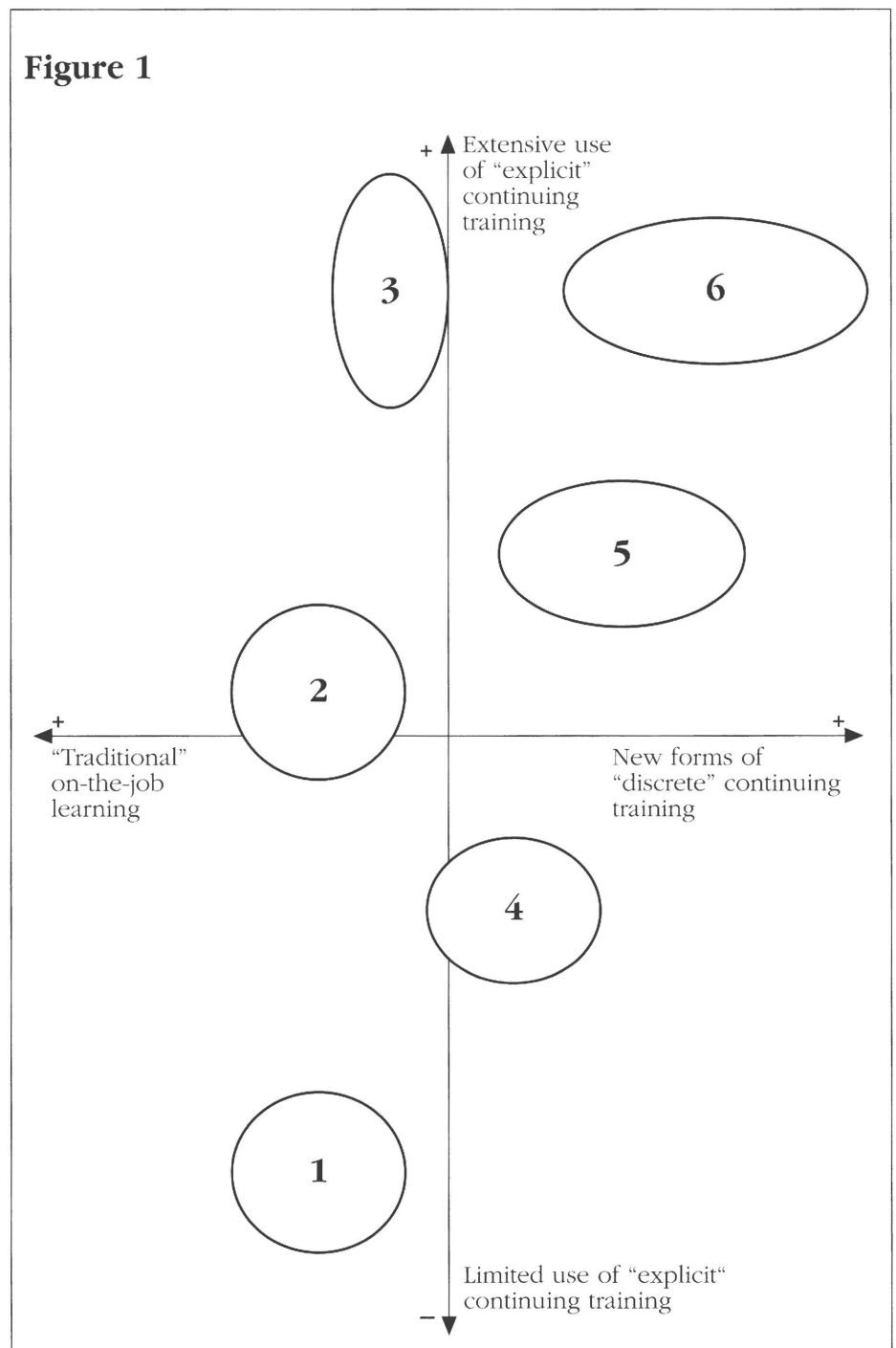
*“...it would seem that beyond what we are used to calling “empirical skills”, we are seeing the creation and transmission of truly theoretical representations of work.”*

calling “empirical skills”, we are seeing the creation and transmission of truly theoretical representations of work. This is what G. Vergnaud calls the “active theorems” and “active concepts”<sup>6</sup>. Furthermore, it cannot be excluded that in discrete processes more conceptual general knowledge can be acquired in the classical sense of the term. In fact some of this knowledge is subject to a two-fold process: it is both immediately linked to the product and thus specific to the company. But, at the same time, given its

character of an “active concept” and the effects of additionality mentioned above, it tends to become transversal even if the forms for its exploitation and certification continue to be very problematic.

Finally, it contributes more strongly in the countries with a “school-type” model to overcome the gaps between discrete and explicit forms of training. This gap has more to do with both the nature of knowledge and the way in which it was transmitted.

**Figure 1**



<sup>6</sup> See G. Vergnaud, Qu'est-ce que la didactique? En quoi peut-elle intéresser la formation des adultes peu qualifiés, Education Permanente, No. 111, 1992, pp. 19-22



### Training paths, indicators of major gaps

If we take, as the symptomatic indicator of "work" on skills, the way in which the studies used some of their explicit training on the one hand and on the other hand the range of discrete forms of training mentioned above, we can suggest the following pattern.

Set 1 corresponds to the traditional use of on-the-job training of the journeyman type without any link to explicit training. It is still characteristic for some craft enterprises but they are tending to disappear in our sample.

Set 2 could be considered as being significant for the strictest Taylorist forms: disappearance of on-the-job learning, reduced to a rapid adaptation to a low-skilled workplace, more or less total absence of formalized training except for middle management. This formula is still to be found and is even developing in some units in our sample which are undergoing industrialization of the Taylorist kind and this, again, rather in southern countries.

Step 3 is representative of the developments in the 1980s, for example in France, but also to be found in several cases in Spain, Italy and Portugal: technological development, organizational constraints linked to a fall in series and quality demands which come up against the low qualification of operational staff. Relatively extensive continuing training programmes are set up in order to provide initial retraining, technological updating and bring about a change in attitudes within the company. However, developments in work organization often dictated top-down in a socio-technical manner do not enable us to talk of a radical break giving the organization open potential for self-learning<sup>7</sup>.

Sets 4, 5 and 6 are significant of new organizations in which open space for discrete forms of re-emerging learning is a fundamental component. Learning at work enables the acquisition of new knowledge, practical skills which go beyond simple sleights of hand, knowledge which is based on innovative and not routine behaviour. This learning is part of

the redrawing of borders between groups (borders between occupations, borders between hierarchical levels). The processes of discrete training contribute to the construction of new standards and rules which support work organization. The distinguishing features between the three sets are the scale of discrete forms of learning and the degree of links with explicit training forms.

In Set 4, for reasons linked with the national continuing training system (weakness in training structure or initial training model which gives priority to apprenticeship) and with problems of cost, explicit continuing training is little developed.

In 5 and 6 the intensity of the joint mobilization of discrete and explicit forms of continuing training is very high: the company, by virtue of quality, becomes integrated into an "organizational project" and thus becomes a training site. However, in 5 the logic is that of a juxtaposition of training forms (which for example do not concern the same categories, which are not constructed in an inter-linked manner in a learning continuum) whereas in 6 the links of the two forms are conceived in an overall training project<sup>8</sup>.

Although, in the course of time, most of the companies in the sample moved rather towards 4, 5 or 6 only a small minority is found in the last category. Two scenarios are therefore possible. According to the first, the new production model and its partner, increased desire for different components in skills, would be a general figure given the "universal" pressure of the market. The differences recorded had to do with varying degrees of constraints on the markets and, more particularly, from the time gaps. According to the second, what we are certainly witnessing is the emergence of new principles in some of the companies but which will not be applied generally. The logic of competence, therefore, only concerned a (minimal) fraction of the companies and staff and what we were seeing were new forms of segmentation depending on the kind of company, categories of staff. The size of our sample and the observation conditions make it difficult to decide between these two options. However, various elements point in favour of the second scenario on

### *Under what conditions can one speak of skill-generating organization?*

<sup>7</sup>That is to say work and skills are expected to adapt to technico-organizational choices which certainly take them into account but rather as ex-post variables.

<sup>8</sup>This is the most obvious case of a challenging of the borders between explicit and discrete training.



which most of the conclusions of the national reports agree which reflect this scenario. They stress the importance of conditions to be met, particularly on the institutional level, in order to set up a skill-generating organization.

### Some political consequences

The synthesis report of the CEDEFOP studies develops a whole set of challenges having to do with the dynamics of learning, the construction of public policies, the problems of restructuring labour markets (mobility, risk of the exclusion of some categories), the position of various individuals in negotiations on the company level or the national level, problems raised by the emergence of on-the-job training in respect of certification and recognition/utilization of skills. We will restrict ourselves here to two questions: that of the "internal" conditions for dynamic learning in the company, and that of the links between this dynamic and public training policies.

#### The construction of training in the company: limits to a "skill-generating organization"

In the development of discrete training forms and their efficient combination with explicit training, several conditions have to be met if we are to talk of a truly skill-generating organization, capable both of guaranteeing the development of the skills of staff and of triggering dynamic self-learning and self-retraining processes.

The first condition is that of the link with production time and control time: setting up a training environment (discrete and to a lesser degree explicit) implies that control time makes allowance for this facility. If that condition is met in some cases (functioning in hidden time, acceptance of non-productive time in the organization of work) it is still, however, the case that forms of direct control exist which could work against the use of formalized training (fully removed from working hours) and the development of new generation discrete forms.

The second factor is the degree of de-prescription of tasks and independence given to individuals and groups. Offering an opportunity during work for learning by trial and error in a search for innovative and organizational solutions, implies relaxing the strict prescription of tasks. Only a commitment to results coupled with freedom of choice on how to achieve results will enable this condition to be met. We could also add to this the necessary "acceptance of the event"<sup>9</sup> which involves turning disfunctioning not into distancing from the standard, likely to attract sanctions, but into an opportunity for learning and for collective treatment of the problem.

The third factor has to do with cooperation and tension arising from the sharing of knowledge. We know that much of the educational identity of a group or a category rests on the degree of control which it has of its specific know-how which demarcates (and constructs) its social position. Now in some of our cases supervisors are very destabilized, withdraw or even impose brakes on these processes as soon as they see themselves threatened in their positions by the growth of skills and independence of their workers. Inversely, in one Danish case we could see to what extent a complex game of negotiation between the unskilled and the skilled (represented by two different trade unions) had facilitated the exchange of knowledge between the two categories. In the redistribution processes underway, major tension emerges between groups which are destabilized by the new organizations. This tension can give rise to new forms of retention of knowledge in conflict with the construction of an organization which aims to de-privatize them. But, in return we can see that in some organizations the adoption of an overly flat profile, which eliminates any form of hierarchical tension or the search for homogeneity in the workforce (in terms of recruitment, training modes) could lead to a "flat encephalogram", removing any form of dynamics leading to intra-group heterogeneity or tension between the groups.

The last factor is the time factor of learning: the problem here is that of a dynamic articulation of organizational dynamic learning. This problem is by no means

<sup>9</sup> cf. among others Ph. Zarifian, *Acquisition et reconnaissance des compétences dans une organisation qualifiante*, Education Permanente, No. 112, 1992, pp. 15-22



foreign to a “learning” model imposed in society or in the company. For the purposes of discussion we could set against this an upstream logic in which learning is thought to precede any organizational change (at the risk, as was the case in some of the companies studied, of acquired knowledge being lost as it is not immediately used and doubt creeping in about the usefulness of training which is not in harmony with changes which are dragging their feet) and a downstream logic in which training, deduced from organization change, is called on or is used as a kind of ambulance to overcome the disfunctioning which then appears. Between these two extremes, a whole spectrum of more or less favourable situations could be identified. In fact, behind this problem there is a dual question. First of all, under what dynamic conditions of learning and organization can they be linked together in order to bring about true production flexibility. Secondly, under what conditions can training be fully integrated as a construction principle into the new organizations and the rules on which they are based.

### **The link with public (initial and continuing) training policies**

A second set of conditions (and variables) which influence the logic of competence are those which have to do with the general economics of training systems.

On the one hand, we should stress that the construction of “new” learning dynamics is inseparable from the fundamental level of knowledge of staff. Of course, upgrading training which is often wearisome and costly can be set up success-

fully. In some of our cases, the learning dynamics undertaken with poorly skilled staff helped to avoid exclusion and promoted the setting up of “virtuous circles” of competence development. But this was all the easier because the initial training system is of a high standard, particularly because the ability to learn through work, and to profit from explicit continuing training are encouraged by a sound level of initial training.

Furthermore, the architecture of this system is by no means neutral: the priority given or not given to the occupational dimension, the type of social construction of knowledge (academic separation or not, occupation), the link between this system and the internal hierarchies in companies are other elements which influence the setting up of a training site and the organizational dynamics which accompanies it.

Finally, the influence of public continuing training policies is certain. In order to make rapid progress it seemed to us, after reading our cases, that the existence of structured public intervention, be it directly for companies or via the intermediary of a training body which it supports or moulds, is the essential precondition (but not the only precondition) for the logic of competence. This is all the more important because in several cases we saw a process of transformation of networks which emerge between the company and its local environment (company issuing orders and sub-contractors, company and training apparatus): the quality of these networks, the position held by issues of skills and training therefore become central variables.

*“On the one hand, we should stress that the construction of “new” learning dynamics is inseparable from the fundamental level of knowledge of staff.”*

*“... it seemed to us, ... that the existence of structured public intervention, ... is the essential precondition (but not the only precondition) for the logic of competence.”*



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# Trends in Worker Recruitment Practices in Swedish Companies

**Industrial countries need an improved economic strategy based on skill development and intensified vocational training. This article briefly outlines worker recruitment practices in Swedish companies. Swedish firms emphasize the need of communicative skills in a changing organizational environment. Interviews with manufacturing firms show that future recruitment requirements for blue-collar workers will be high school competence (minimum standard), broad education, and problem-solving ability. Personal qualities are also important due to team work. In reaching the requirements, more collaboration between school and industry is necessary, and school has to adjust to the changing needs of the labour market and employers' practices.**

*"... the market has to be prepared to incorporate individual skills and new knowledge. Unless this is possible and if labour market flexibility is low the best knowledge and skills may be wasted."*

"The increased importance of skills and competences – and the higher the cost of inadequate skills and competences – have raised the stakes in further education and training for firms (as a way of staying competitive), for individuals (as a way of staying employable and providing opportunity for wage growth), and for society at large (as a way of ensuring that national economies stay competitive internationally, and that the benefits of that competitiveness are widely accessible to all in society)." (OECD 1993, p. 8).

"A fundamental recommendation is that higher education institutions should adopt cooperation with industry as part of their fundamental mission, especially in the continuing training field, and that companies themselves should have an explicit education and training strategy as well as an organized interface with higher education which will encourage and facilitate access and dialogue." (EEC, 1993, p. iv).

The current policy assumption is that industrial countries need an improved economic strategy based on skill development. Skill development and improved internal training in workplaces are generally believed necessary to increase productivity and to ensure a prosperous future. In most of the world "the third industrial revolution" is gradually replacing the former "Taylor" production organization model with new high performance work organizations. The Tayloristic method was well suited for mass production of relatively simple goods, (Taylor 1920). Development today is towards complex, high performance and client-oriented systems products that satisfy high demands on quality, variety, and volatility in consumer tastes.

Even though increased needs of education and skills are seen, many recent studies (Bishop 1993, EEC 1993, Heckman

1993, OECD 1993) underline the declining quality and educational levels of the workforce and in particular the lack of appropriate internal training. Practices and policies for correcting this situation differ among the European countries. Most of the current discussion has focused on higher education and industry cooperation in education and training. Some concern was, however, also raised regarding the unsatisfactory state of vocational training in the European Community in the early 1990s. Some of this concern about the unsatisfactory state of vocational training is, however, based on assumptions rather than facts. Since slow growth and employee performance are assumed to have been caused by skill deficiencies in the labour force the blame goes to the educational institutions. The reason can also be, for instance, a badly organized labour market (see Eliasson 1993). This means that the market has to be prepared to incorporate individual skills and new knowledge. Unless this is possible and if labour market flexibility is low the best knowledge and skills may be wasted. Managers must have the proper skills to direct individuals to the right jobs and provide such jobs. It is further important to train at all levels. Countries try to solve their skill development problems in different ways. Countries like Germany, Switzerland and Australia depend on Youth Apprenticeship programs, whereas France for example encourages all employers to provide on-the-job training and Sweden has a great number of vocational schools (see Ballot-Taymaz 1993). The future workforce, however, has to be prepared for continued "learning" on-the-job already at the school level.

The article raises the question how school should educate individuals to build the right platform for further development of skills, at the workplace. The knowledge students carry with them from school to the workplace affects how well they do



in the labour market, and on a job. Therefore, school cannot live its own independent life but has to adjust to developments in the workplace. One responsibility of school is to provide the students with a minimum level of communication skills, the necessary platform to continue learning on-the-job. The opinion of firm managers is that school performance influences workplace performance in a number of different ways.

Trends in recruitment policies in Swedish companies will be discussed, and the immediate and future needs of these companies identified. Our study is based on a number of interviews with Swedish firms within manufacturing, notably engineering industries. Both large corporations and a number of small and medium-sized manufacturing firms are included in the sample of about 50 firms. The sample is representative in terms of localization, including both hitech and low-tech companies, and including firms dependent on exports as well as firms with no exports. The interviews were carried out between May and December 1993, and were addressed to the managing director, and/or the personnel or education manager at the firm. What we learned from all different firms was surprisingly similar, a very interesting observation considering the heterogenous sample that we interviewed. In particular, both large and small firms have similar development tendencies and similar problems to cope with in the future. This article is based on the experiences of the interviewed firms.

## New Challenges for firms

After more than 100 years of continued successful growth performance Swedish industry has stumbled, since the early 1970s, on a sequence of increasingly severe problems. Conditions for industrial production have changed for the worse in Sweden, as well as in the rest of Europe (Andersson et al. 1993). Most of the needed changes to raise productivity levels and stay competitive in international markets are associated with the introduction of sophisticated production techniques requiring less labour but more educated labour. Many firms have introduced advanced automatized production that

requires that workers are able to read and understand complicated machine instructions and are prepared for continuous learning and flexible adjustment to new process changes. The appropriate term is educated rather than skilled labour, since firms normally prefer to train the workers for particular jobs themselves. Poorly educated students are, however, not profitable investment objects for such training (Eliasson 1993). This change in demands on workers' quality is clearly visible in the advanced production plants, but we can foresee a transition involving most of the worker population over the next 2-3 years.

Our observations from the interviews indicate the following problems: 1) the Swedish workforce is old; the average age of a *skilled* blue-collar worker is between 45-50 years, (white-collar workers are in general a bit older) and managers worry about the possibility that the new entrants are not sufficiently educated to rise to the levels needed for profitable on-the-job training. 2) the "third industrial revolution" requires new methods for managing and for organizing work and production. 3) Mass production methods will continue to be applied for high volume production of simple products, which constitutes a significant part of Swedish manufacturing production (Braunerhjelm 1994). 4) There is, however, a development towards more flexible small-scale quality and client-oriented batch production. 5) This latter type of production requires new incentive systems of the firm. One consequence is that all individuals employed by the firm have to be treated as professionals, since most workers are either engaged in production scheduling or the setting on reprogramming of machines. This is not easy in a labour relations environment based on Tayloristic thinking.

These challenges involve fundamental cultural changes in the firm as well as organizational adjustments to accommodate the introduction of flexible, client-oriented technology, quality improvements, and reduced delivery times. Fewer organizational layers with fewer managers (many decisions are pushed down to the front line), create more meaningful jobs for all, and an emphasis on "team work". The change in work organization

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*“... It is almost impossible to get a factory job without a high-school diploma ... for skilled workers gymnasium diploma, preferably in technical subjects, is normally required.”*

towards more team oriented tasks again, however, raise educational and skill demands on the individual, notably in communicative skills. Another change is that few jobs in the future will be life-time positions. On the contrary, flexibility will be rewarded and rotation between different tasks much more frequent than before. Less accurately defined job specifications, and overlapping tasks between workers, will be the consequence and the clear job demarcation lines between white- and blue-collar workers will gradually disappear. Group-oriented behavior, flexibility, the ability to pay attention to fellow workers, and to instruct junior workers, etc. are attributes of the new factory organizations that are expected to enhance efficiency. This also means that more responsibilities will be delegated to workers. Both the team and each individual worker will be held responsible for their parts of production. Teamwork is also integrated with a broader framework of information as in the Japanese firm. Information processing at high levels in Japanese firms is seldom limited to managers, but integrated with local shop floor information processing. Despite this general systems concept of team work, workers will act in their own self interests, salaries being tied to individual performance. Many firms are working on finding new result- and quality oriented compensation systems that will allow for a great deal of individual differences.

The workers need skills to cope with organizational changes in the firm. Furthermore; *“It is the character of the workers’ skills that produces high efficiency on the shop floor, and what appears to be team work at a glance is the result of these skills.”* (Koike 1991 p.1.). Organizational change puts pressure on both managers, employers and employees, requiring supporting adjustments in attitudes of workers and work practices at the firm, adjustments that in turn require educational support from school. In fact, judging from the interviews the greatest pressure for change normally has to do with the culture of the firm, in particular, values, attitudes, and the ways people relate to one another. According to the firms, the restrictive Swedish labour legislation, also needs to be accommodated to such ongoing organizational change.

## Recruitment Requirements and Practice

Future recruitment requirements will be raised. Today already, Swedish employers impose very demanding recruitment practices. It is almost impossible to get a factory job without a high-school diploma, and competition in the labour market is high for almost any kind of job given the high unemployment level. For skilled workers the gymnasium diploma, preferably in technical subjects, is normally required. The reason expressed, is that this general education is needed as a platform for continued competence development on-the-job. Such stiff requirements may have something to do with the recession, but also with institutional factors. In addition, the restrictive labour market legislation has over the years made employers very careful in selecting applicants to avoid hiring “lemons”.

Hiring practices are in fact tending towards increased demand of skill and education at all levels. *First*, there is a need for general communicative skills in Swedish, other languages and mathematics. In particular, the importance of foreign languages is growing because most technical instruction manuals are written in a foreign language, mostly in English but also in German and French. *Second*, subjects like computer science, electronics, control theory, and mechanics are particularly important for skill development and the problem solving capacity of workers at the shop floor, especially in small firms which do not have in-house maintenance specialists. In addition, due to the new ways production is being reorganized into team-configurations, particular personal characteristics are becoming very much in demand. Apart from good work ethic, there is a demand for good social or team behavior. Individual characteristics that the employers value highly are; independence, creativity, flexibility, the ability to work in a team, problem solving capacity, communicative skills, and social competence. Finally, small firms would also like to see employees possess some entrepreneurial skills.

Grades and school certificates play a role in the recruitment of young workers just out of school. Firms, however, look at the





overall grades in communicative subjects rather than for specific knowledge. Firms look at grades as a means of selecting general quality, but some firms also see grades as a signal of potential ability. In a labour market with high unemployment high school grades increase the probability of being offered a job. What matters for recruitment, however, apart from having the right education, is "experience, personal chemistry and references" as asserted by the recruiters. In particular, what matters is recorded "on-the-job" quality and performance. References are particularly important for white-collar workers although most large firms want to see the distinction between blue-collar and white-collar workers eliminated.

According to firms there are ways in which the school and the firm can meet and collaborate. Productive relationships with institutions of higher education already make a major contribution to many larger firms' competitiveness and business performance. However, even the small firms need this collaboration. The problem has been that the small firms and the higher educational institutions have not been able to find a common meeting ground that benefits both. In addition, their communication seems to be afflicted by a significant amount of misunderstanding.

Employers of both small, medium-sized and large companies also have reason to cultivate their relationships with schools, because they know what kind of skills they require and thus the kind of skills schools should provide. Recent research has emphasized the importance of primary education (Psacharopoulos 1991, Eliasson & Kazamaki Ottersten 1994). *"Make sure that the country has a solid primary education base before embarking on university expansion. The expansion of primary education, where attendance is not universal, might offer the highest social benefit per dollar or peso spent relative to any other investment in the country. Expansion of primary education is also likely to have a sizable impact on reducing income inequality and poverty, as it is those at the lowest end of the income spectrum that are not attending primary schools."* (Psacharopoulos, 1991, p. 18). This statement applies both to developing and developed countries. In addition, it has been

shown in the literature that *"the quality and amount of earlier schooling experience predict the quality and amount of subsequent learning experience, which predict and interact with job level, earnings and life chances more generally"*. (Tuijnman, 1994 p. 17). In Sweden primary school starts at the age of seven (which is late in comparison with other European countries) and is among the most expensive in the world. There are further few private school alternatives, and thus in general small differences between schools.

The basic idea that the better initial formal education the more trainable is the worker encourages firms to approach the school. Many employers have already developed and established links with schools through the "practitioner" programs that pupils at school take part in. The employers emphasize as important that students visit, and get some hands-on shop floor experience. Despite the fact that vocational training is widely provided in Sweden in comparison with many other countries, the general view among employers is that both pupils and teachers have an old-fashioned conception of industry as a workplace. Therefore they should be guided towards the manufacturing work place to learn.

Organizational change requires new skills and forms of education at recruitment of workers. Also continued maintenance and development of skills is demanded. The workforce needs to be integrated in the change process. There are different ways in which the employers try to achieve this.

*"Learning is the product of experience... technological change in general can be ascribed to experience, that is the very activity of production which gives rise to problems for which favorable responses are selected over time."* (Arrow 1962 p. 155-156). Learning by doing is extremely important and time is needed to learn and get accustomed to a new job (according to the firms this takes on average six months). In addition, continuous changes in production and organization require continuous on-the-job training. There are various ways in which this training takes place, *first* through guidance by more experienced colleagues at the firm, *second*, through external programs outside

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□ **high-school competence. Jobs with low skill content will gradually disappear**

□ **a broad education and analytic problem-solving competence**

□ **more steering at school towards the labour market and industry**

□ **higher work ethics and discipline from school.”**

**“... the school has to monitor the changing needs of the labour market and employers' recruitment practices.”**

the firm (which may or may not be held at the firm), *third*, through sending workers abroad both to training centers and/or to other firms, *fourth*, through industry schools run in cooperation with the schoolsystem or exclusively run by the firm.

Large firms (and some small ones) are in favor of industry schools within the company, and particularly schools run by the company, because the teaching agenda in such schools recognizes the needs of the firm. Thereby requirements are set high both on students and teachers. The experience is that industry operated schools work very well and succeed in providing firms with the right skills. Today no real skill shortage is felt other than within a few highly specialized fields. In the near future firms are expecting serious skill shortages in a number of different trades, for example; welding operators, specialized assemblers, operators, computer operators, production technicians and managers, mechanical technicians and engineers in general.

Most firms strive to make their work environment more attractive than today and to raise both the status and the requirements on training in industry schools. There is, however, a growing awareness that in doing so serious rethinking is necessary to exploit new techniques and opportunities to the benefit of both the firm and its employees.

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**The future general tendency is towards**

□ low scale production and customised ways to design and produce goods  
□ a more open and experimental attitude to new ways to organize production.

On recruitment requirements by the firms will be:

□ high-school competence. Jobs with low skill content will gradually disappear  
□ a broad education and analytic problem-solving competence  
□ more steering at school towards the labour market and industry  
□ higher work ethics and discipline from school.

In order to develop such competences at school or at the workplace the school has to monitor the changing needs of the labour market and employers' recruitment practices. This openness and flexibility is not part of the traditional school mentality. Even school, however, has to innovate and improve its product designs in order to cope successfully with its future and an experimental approach is the most promising way to be a high achiever in this respect (Eliasson 1992). Here schools have a lot to learn from the experimental product development that firms use. More collaboration may also be needed between school and industry especially towards the end of school when education becomes a transition into the labour market.

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# Skills versus competence: Semantic debate, development in concepts or political challenge?

Interview with Andrew Moore, UNICE<sup>1</sup> and Anne-Françoise Theunissen, CES<sup>2</sup>, undertaken by F. Oliveira Reis, CEDEFOP.

**FOR:** *We have the impression that in the current debate there is a shift from the term skill to the term competence. Is this simply a semantic issue or a change in the nature of the debate or a new political challenge?*

**AM:** For us, to a certain extent, this is a political challenge. The concept of competence takes us back to the actual ability of an individual to deal with all the tasks which make up a precise workplace. Technological and organizational change as well as the modernization of working conditions force us to focus more on the potential of the individual to mobilize his abilities and to develop this potential in concrete and developing work situations. This takes us away from the use of classical descriptions of jobs.

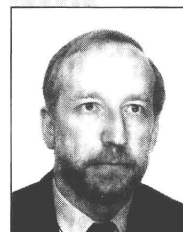
The competence approach is seen by employers as being particularly relevant because this refocusing on the individual and his capacity for development constitutes a major source of personal motivation and flexibility. This involves moving from a management philosophy in which the individual serves "the system" (classifications based on prescribed tasks and demands) to a philosophy in which "the system" serves the individual by taking into account the way in which he develops, mobilizes and increases his

potential for solving concrete problems. Everybody is different and the time taken to reach a certain stage differs from one individual to the other. What is important is to fuel individual motivation in order to develop and provide for flexibility in the overall work and training systems which will enable each person to find his position and to overcome individual shortcomings.

The political challenge is, thus, to build coherent systems for training, assessment and classification which are the subject of mutual faith and which offer sufficient guarantees to individuals and their employers.

**AFT:** The question which can be raised today is whether this shift in terms does not also reveal a shift in the sites of negotiation and negotiation itself: we are moving from the negotiation sites between employers and workers to directories, nomenclature and classification accepted by the one side and the other, to discussion which is not the same as negotiation between employer and employee as the individual. And, for us workers, this is a political challenge.

Furthermore, at a time when we are witnessing a situation in several countries and in some professional sectors in which



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**Anne Françoise Theunissen**

*Representative of the Belgian Confederation of Christian Trade Unions and currently Deputy Chairperson of the CEDEFOP Management Board*

**AM:** *"For us, to a certain extent, this is a political challenge.*

*The political challenge is, thus, to build coherent systems for training, assessment and classification which are the subject of mutual faith and which offer sufficient guarantees to individuals and their employers."*

<sup>1</sup> UNICE The European Trade Union Confederation (ETUC) unites 36 trade union organizations from European Union and EFTA Member States and other countries.

<sup>2</sup> The Union of Industrial and Employers' Confederations of Europe (UNICE) was set up in 1958 and unites 33 member federations from 22 European countries.



**AFT:** *The question which can be raised today is whether this shift in terms does not also reveal a shift in the sites of negotiation and negotiation itself... And, for us workers, this is a political challenge.*

**AFT:** *“Now when we talk about competence this is something which is far more open to arbitrary treatment by the employer since it is a matter not only of how he is going to use the various abilities of workers but also the way in which he intends to reward them.”*

**AM:** *“...the dilemma which often faces the employer: to provide training and run the risk of losing employees ... or not to offer training ... and run the risk of losing ground in terms of competitiveness.”*

there are no longer trade unions to discuss this issue, the danger of a weakening of collective bargaining and a shift to individual bargaining is very real. This is particularly the case in small firms where the absence of representation within the company of protection and of a relaunching of trade unions can lead to a serious error in the course we are charting.

**FOR:** *In concrete terms, what are the main problems which arise in negotiations on the basis of competences?*

**AFT:** Negotiation within the company constitutes the phase during which there is articulation between what a worker himself has achieved during his life and what he uses in his occupational activities. Now we know that the work situation, the workplace, mobilizes to varying degrees competence potential which individuals have and, thus, the non-mobilized part runs the risk of not being recognized or validated. Now when we talk about competence this is something which is far more open to arbitrary treatment by the employer since it is a matter not only of how he is going to use the various abilities of workers but also the way in which he intends to reward them. And for us, this question is particularly important at a time when the threat of unemployment means that many individuals, particularly young people, accept jobs for which they are over-qualified.

**AM:** Yes indeed, when the individual acquires a qualification which is of benefit for his occupational development we can expect the level and type of that individual's aspirations to develop. The employer will have to recognize these efforts, otherwise he runs the risk of losing that individual. But this need not necessarily lead, automatically, to an increase in pay or a change in job.

This also explains the dilemma which often faces the employer: to provide training and run the risk of losing employees because the company is not able to satisfy their demands and the workers, in turn, have more opportunities for external mobility or not to offer training and to find themselves with human resources which are no longer in tune with technological and organizational change and run the risk of losing ground in terms of com-

petitiveness. Today there is a growing interest in human resources in companies as there is an awareness that a need for technology or information can be immediately satisfied and that by contrast a skilled and high-performance workforce cannot be “imported” or made available from one day to the next. But the balance of positions and the compromise of interests remain fundamental issues.

**FOR:** *At the present time there is a growing demand for people to be adaptable, to develop and to be innovative. With this in mind, how do you see the division of responsibilities between schools and companies in the production of competences?*

**AFT:** This question touches on, first of all, the role of the school. The school is a multiple universe, a site for education, the transmission of knowledge and culture. It is a public service distinct from the economic and social fields, although it is deeply integrated into the overall structure of society. Thus, it establishes relations between the various sites of economic, social, domestic, civil and occupational knowledge. However, school is subjected by families, companies, pupils or political representatives, to contradictory pressures which challenge its social role.

In the debate and comments on school, if we have to bear in mind the labour dimension, the difficulties involved in the forward-management of jobs and competences and the move to destroy work, all show that work and employment cannot define the limits to education, training or life-long education.

Thus, it is a matter of meeting the criteria of democracy by giving people training which enables them to act as the producers of goods and/or services and as players in civic society. It is also a question of promoting collective advancement as one of the goals of equality. These criteria can serve as a leitmotif in the three fields of training which are education, vocational training and life-long education.

The links between schools and companies are conditioned and alternance training becomes an immediate challenge to



the extent that it can open up learning opportunities for young people who are excluded from the academic system and enable them to acquire knowledge on the basis of what they are actually doing. To do this in an actual work situation use must be made of additional continuing training.

**AM:** For us employers, it is essential to have the assurance of rapid access to skills which will enable individuals to pursue occupations, to develop and, at the same time, to carry forward work situations. In the field of competences we must distinguish between general competences and the competences which make up precise tasks. The State must guarantee the acquisition of general competences and we would like to see a relatively high level of general training, something which we are seeking to bring about in all Member States by means of a dialogue between employers and governments. In the United Kingdom, for example, we are asking of schools that they do not overly specialize because this specialization should be acquired at university or in the company.

Parallel to this we believe that the work site constitutes an opportunity for acquiring certain competences which cannot be acquired in school and which would act as a complement to school achievements. Consequently, we see a progressive shift in education towards the work environment and towards individuals who, at one and the same time, are pursuing an occupation and providing training. This takes us away from the concept of "class instruction". However, this brings us into contact with the difficulty of finding people who, in the work environment, are able to teach competences and evaluate them in a reliable manner.

It is the role of the State to guarantee the balance and coherence between general competences and specific competences, between the short-, the medium- and the long-term.

The political question on the European level is to establish the consequences for the adoption of a new system in the Member States, the arrangements to be made with the trade unions and education and training bodies. I believe that the Com-

mission, together with CEDEFOP, has a role to play in this field.

**FOR:** *How do you see the question of the assessment of competences acquired in the working environment?*

**AM:** This is a very important issue which has both political and technical connotations. On the one hand, assessment fully raises the problem of social recognition, the results of this assessment and thus of its reliability. On the other hand, one cannot disassociate from a two-fold question the aspect of mobility.

From the employers' point of view, there are difficulties today in resolving the issue of assessment of competences acquired at work since this would call for the presence, in the working environment, of individuals who are able to do this in a reliable manner. Now in many countries middle management has no experience of assessment or validation of competences.

But it would be unacceptable for the individual and the employer to leave assessment to employers alone. Assessment, recognition and/or validation can only be undertaken by bodies who have responsibilities in this field and, in the United Kingdom for example, it is possible to call on a certification body who sends, to the work environment, individuals who are competent in the field.

The political challenge is to construct the system which enables dual recognition by the company and by training bodies. Otherwise the qualification, even if certified, will not be barterable. This requires that a strategy be developed for quality control and that the State play a major role in monitoring, very closely, these developments.

On the Community level, the Community, together with CEDEFOP, also has a role to play in this respect: on the one hand, by analyzing the way in which assessment, recognition and/or validation of learning have been undertaken so far in the various countries and, on the other, by undertaking important work in respect of terminology in order to create the preconditions for debate amongst the social partners.

**AM:** *"The political challenge is to construct the system which enables dual recognition by the company and by training bodies. Otherwise the qualification, even if certified, will not be barterable."*



**AFT:** If the belief is that assessment must lead to recognition which enhances the achievements of individuals in the pursuit of their work, there is, indeed, a very important question which has remained unanswered so far. This raises several problems both regarding the definition of work and training contents and also concerning the involvement of the various players (employers, trade unions, the State).

Some tasks may exclude intrinsic competences from the individual. Some assessments of functions do not place any emphasis on competences used and this is particularly obvious in the case of identical functions described in different ways. For example, if you get men and women to talk about the same occupation then this is very revealing of the different systems of values used. Often, we note that women carry out work which differs from what is suggested by the title of their function, work involving various responsibilities which are not explicitly stated. This is far less frequently the case with men.

As social partners it is these issues which concern us. The public authorities, furthermore, have an important role to play in the recognition of achievements during working life and the certification of training. But this role has to be redefined in respect of content and form.

Before answering this question, studies and research work are necessary. CEDEFOP can provide the fundamental information essential for political debate.

**FOR:** *Could it be said that the competence approach brings with it the risk of making null and void the agreements between employers and trade unions?*

**AFT:** There is a dynamic element in the determination of qualifications. The proof is that we are in the process of discussing them. If we look at the various countries we can see that employer organizations and trade unions have felt the need to redefine classifications, one of the major components being qualifications. Work organization has changed and technological developments bring with them a whole series of new elements which have to be taken into account. The prob-

lem is that when you redefine what workers have to do, this brings us up against the problem of the great diversity in work organization which coexists today.

Therefore, this work of redefining qualifications must continue in order to better adapt them to changes in work and labour systems and collective bargaining is the guarantee for this. In this respect I would like to stress some aspects. On the one hand, we have to accept that we can think less and less in terms of a strict adjustment between training and employment and begin grasping that any efforts to mechanically codify qualifications are doomed to failure. On the other hand, we can see a shift in workers from industrial production towards the services sector which forces us to rethink our approaches which are still very much influenced by references to the industrial sector. Finally, we have to examine more closely the question of social representation of qualifications: why, for example, does a nurse or teacher have less standing than other occupations, for example industrial engineers in companies, whereas it could be said that they undertake training of a similar length? Are human activities less valid than technical activities? The question of competence raises this kind of issue and it is indeed a political question in relation to which societies structure and organize themselves.

**FOR:** *What is, for you, the challenge linked with the "competences portfolio" which is currently being discussed within the Community?*

**AM:** The creation of a competences portfolio seems to be a very good idea to help to identify what individuals have undertaken and achieved. This is a tool, the main quality of which will be its "understandability" by various groups from one country to another. To this end, there must be a kind of structure, concept and language which facilitate understanding of competences in different cultures.

This is by no means an easy task and all discussions undertaken so far do, indeed, demonstrate that there is a problem of terminology and concepts. The "portfolio" as under discussion at the present time still requires a great deal of debate. I

**AFT:** *"The public authorities, ... have an important role to play in the recognition of achievements during working life and the certification of training."*



believe it would be premature on the part of the social partners to abandon the idea because of current difficulties. We should at least wait until we find another, more consistent, work hypothesis.

We need a tool which is able to transfer simple and clear information from one Member State to another, a tool which would be of use both for employers and individuals.

And, even if the goal is not to change or harmonize qualification systems in the various countries, we believe that this tool could encourage improvements in the quality of the systems to the extent that it would place in parallel what the qualifications mean in the different Member States.

**AFT:** The “competences portfolio” was introduced by the Commission following a decision of the Council of Ministers on qualifications at a time when the realization was spreading that the project on the comparability of qualifications did not meet the needs of transparency and mobility which had been the goals.

Now in order to accept a new instrument on the negotiating table, we should be clear on what the objective is and what the conditions are for the achievement of that objective. Of course, the workers have to have a tool which enables them to validate what they are doing and what they have achieved. But the major question mark hangs over the kind of tool and the conditions for its implementation.

From our point of view, we have to envisage juggling various replies which could help to increase transparency and mobility. A first response would involve

creating fora of the guidance centre kind, with people who have the necessary competence which is recognized on a European level. This is where workers could go voluntarily to put together their own “portfolio”. For us, this is very different from the elaboration of enormous curricula vitae particularly as we know that each time that people apply for a job various or different elements are stressed depending on the requirements to be met.

A second reply could be the elaboration in the Member States of a tool along the lines of an “audit of competences” which has been introduced in France. In a joint agreement which has been signed by the social partners in France, we see for the first time formal use of the term “individual competence”. A right to a competences audit has been introduced by laying down that each employee is entitled every 5 years to do an audit of his skills including his competences. This right, which is recognized by law, means that an employee can go on leave in order to make an audit of his competences and that this leave will be paid by the vocational training funds which are administered on a joint basis by the social partners. The law also envisages, and this was also the subject of negotiation, that the employer can make provision in the company’s training plan for competence audits for its staff.

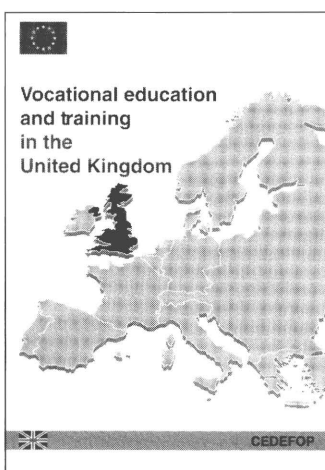
A last reply would involve giving workers information on the sectors in which they wish to work in a different country: what tasks are involved in the same occupation in the different country, how can you gain access to these occupations, what are the object and form of negotiations which are undertaken. The role of Community institutions is particularly important here.

**AM:** “We need a tool which is able to transfer simple and clear information from one Member State to another, a tool which would be of use both for employers and individuals.”

**AFT:** “Of course, the workers have to have a tool which enables them to validate what they are doing and what they have achieved. But the major question mark hangs over the kind of tool and the conditions for its implementation.”

*This section has been prepared by*  
**Maryse Peschel**  
*and the Documentation Service with the help of members of the national documentation network (cf. last page)*

*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. The Section, "From the Member States", lists a selection of important national publications.*



## Reading Selection

# Europe - International

## Information material, studies and comparative research

### The vocational training systems in:

- Denmark (DA)
- France (FR)
- United Kingdom (EN, IT, PT, DE)
- the Netherlands (NL)

European Centre for the Development of Vocational Training (CEDEFOP) Luxembourg, Office for Official Publications of the European Communities, 1993

After describing the administrative, demographic and economic context and looking briefly at the history of the systems, the national monographs look at how initial and continuing training operate, the responsible bodies, the role of the social partners and funding. It continues by examining trends and current developments.

### Systems and procedures of certification of qualifications in the European Community

European Centre for the Development of Vocational Training (CEDEFOP) Berlin, Panorama no. 17, 1993, 103 pages DE, EN, FR  
*Available free of charge from CEDEFOP*

This synthesis compares twelve national studies on systems and procedures of certification of qualifications. It contains outlines of the various training systems and descriptions of the systems and procedures of certification classified according to qualification level. Charts present visual information on the various types of certification together with the means of attaining them and the average age at which they can be obtained, the levels of institutional responsibility and modes of evaluation.

*A summary of this work and the charts were published in CEDEFOP Flash 6/93. The national studies are part of the Panorama series and available free of charge from CEDEFOP.*

## L'accès à la formation professionnelle dans trois secteurs de l'économie européenne

Lassibille G.; Paul J.J.  
European Centre for the Development of Vocational Training (CEDEFOP) Berlin, Panorama no. 14, 1993, 59 pages FR  
*Available free of charge from CEDEFOP*

Within the framework of the preparation of a joint paper on modalities likely to allow effective access to training on as broad as possible a scale, CEDEFOP has initiated a study on the theoretical and practical modalities of access to ongoing vocational training in three vocational areas: construction/project construction, electricity/electronics, office/administration. This summary, based on six special reports dealing with individual sectors and countries, examines ongoing training methods according to sector and suggests a method to compare them.

*Two of the special reports have been published in the Panorama series and are available free of charge from CEDEFOP.*

## Occupational profiles. The restoration and rehabilitation of the architectural heritage

Paulet J.L.  
European Centre for the Development of Vocational Training (CEDEFOP) Berlin, Panorama no. 18, 1993, 29 pages FR, EN, ES, IT  
*Available free of charge from CEDEFOP*

## Quality management and quality assurance in European higher education. Methods and mechanisms

Commission of the European Communities - Task Force Human Resources, Education, Training, Youth Luxembourg, Office for Official Publications of the European Communities, Studies no. 1, 1993, 28 pages + annexes ISBN 92-826-6392-2 DA, DE, EN, ES, FR, GR, IT, NL, PT

This report offers a summary of mechanisms and methods for the evaluation of





quality in higher education in the Member States and EFTA countries.

### **Administrative and Financial Responsibilities for Education and Training in the European Community**

EURYDICE European unit. Produced for Task Force Human Resources, Education, Training, Youth  
Brussels, EURYDICE, 1993, 26 pages  
DE, EN, FR  
*Available from Eurydice*

### **Requirements for Entry to Higher Education in the European Community**

EURYDICE European unit. Produced for Task Force Human Resources, Education, Training, Youth  
Brussels, EURYDICE, 1993, 71 pages  
DE, EN, FR  
*Available from Eurydice*

### **The main systems of financial assistance for students in higher education in the European Community**

EURYDICE European unit. Produced for Task Force Human Resources, Education, Training Youth  
Brussels, EURYDICE, 1993, 32 pages  
DE, EN, FR  
*Available from Eurydice*

### **Employment in Europe 1993**

Commission of the European Communities - Directorate General: Employment, Industrial Relations and Social Affairs  
Luxembourg, Office for Official Publications of the European Communities, 1993, 206 pages  
ISBN 92-826-6055-9  
DA, DE, EN, ES, FR, GR, IT, NL, PT  
*Also published in the "Document" series of the EC Commission: COM(93) 314*

### **Vocational Training. International perspectives**

Laflamme G.  
International Labour Office, Laval University - Quebec Geneva, BIT  
(Collection Instruments de Travail), 1993, 277 pages  
ISBN 2-920259-16-4 FR, EN

A collection of texts presented at an international colloquium held in Quebec in September 1992, the aim of which was to

define the stakes of vocational training systems in various industrialized countries, describe the individual features of some of their components and provide information on the ways and means of ensuring the greatest possible efficacy in a system of vocational training. These issues were discussed by specialists from Germany, Belgium, Canada, Sweden, United States, France, Switzerland, Japan, United Kingdom, Austria, and representatives of various national and international organizations. The various analyses show the extent to which vocational training remains the core of industrial development, a central element in the search for quality and innovation which provides a means of responding to the competition.

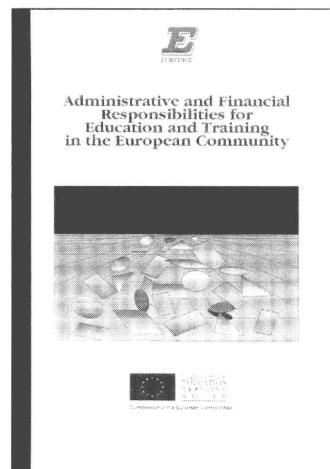
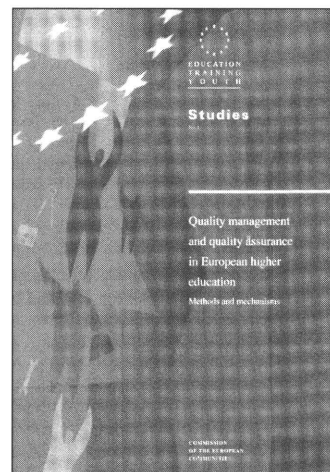
### **The changing role of vocational and technical education and training. Assessment, certification and recognition of occupational skills and competences. Seminar held from 27 to 30 October 1992**

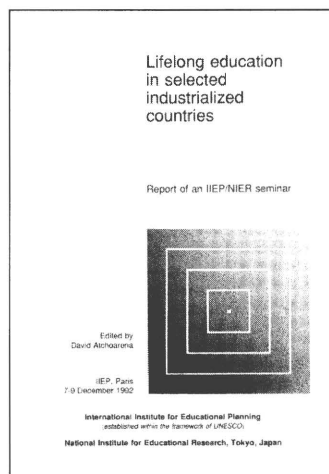
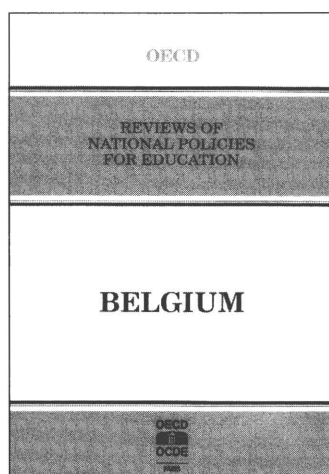
Organization for Economic Cooperation and Development (OECD)  
Paris, OECD, 1992, multiple pagination. Restricted distribution, in publication.  
EN, FR

A collection of contributions used by working groups at this seminar dedicated to the evaluation, certification and recognition of qualifications and vocational skills. Topics discussed by the various groups included: the consequences of various evaluation and certification approaches for programmes and teaching; the role of evaluation and certification in the functioning of training and employment markets; the transferability of qualifications; the European experience and the lessons drawn from the Quebec experience; the implementation of evaluation, certification, validation and ratification.

### **Teaching in OECD Countries. A compendium of statistical information / L'enseignement dans les pays de l'OCDE. Recueil d'informations statistiques**

Organization for Economic Cooperation and Development (OECD)  
Paris, OECD, 1993, 131 pages  
ISBN 92-64-03890-6  
EN, FR





This compendium presents statistics and information on the education systems of OECD countries and covers the 1988/1989 and 1989/1990 school years. The statistics refer to numbers of pupils in the various teaching cycles and streams, numbers of school leavers with or without diplomas, teaching personnel and expenditure. The report includes diagrams describing the education systems of OECD countries, in most cases taking into account the most recent changes. It also makes forecasts on pupil numbers in the various cycles beyond the year 2000.

#### **Education at a glance. OECD indicators/Regards sur l'éducation. Les indicateurs de L'OCDE**

Centre pour la Recherche et l'Innovation dans l'Enseignement (CERI), Organization for Economic Cooperation and Development (OECD)  
Paris, OECD, 1993, 259 pages  
ISBN 92-64-03894-9  
EN, FR

This second edition covers the 1990/1991 school year. It presents a total of 38 indicators allowing an examination of various aspects of educational policies - investment level, financing and recruiting modes, decision-making centres, school attendance rates, pupil selection, results achieved and examination success rates - and identifies levels and types of teaching likely to reduce the risk of unemployment.

#### **Review of National Policies for Education - Belgium**

Organization for Economic Cooperation and Development (OECD)  
Paris, OECD, 1993, 142 pages  
ISBN 92-64-239898  
EN, FR

This publication is a first attempt by the OECD to examine educational policies in Belgium. The Belgian context has changed considerably in the past 25 years, with major modifications being introduced at all levels of the system: school attendance rates have reached peak levels and the constitutional framework has been reshaped in the course of an evolution towards a federal system adapted to local conditions. The three linguistic communities - Flemish, French and German -

have near autonomy in matters connected with teaching. The report stresses the problems which remain to be solved: repeated years and dead-end streams, equality of opportunities, human and material resources. The OECD investigators have also noted the lack of analyses of future prospects and of solid data bases to better steer the systems.

#### **Lifelong education in selected industrialized countries. Report of an IIEP/NIER seminar (IIEP, Paris, 7-9 December 1992)**

Atchoarena D.  
International Institute for Educational Planning (IIEP)  
National Institute for Educational Research (NIER), Tokyo  
Paris, IIEP, 1993, 199 pages  
EN  
*IIEP, 7-9 rue Eugène-Delacroix, F-75116 Paris*

This seminar took place within the framework of a IIRP/NIER joint research project on lifelong education in France, Germany, Japan, the Russian Federation, Sweden, the United Kingdom and the USA. Following a presentation of NIER surveys on Japan (published separately), the participants were invited to analyse and compare national experiences on key aspects of lifelong education: the trends in provision, including industry and higher education involvement; the innovations; and the role of international co-operation. Part 1 of this report is made up of a synthesis of the seminar discussion; part 2 contains the country papers presented at the seminar.

#### **L'Europe et l'insertion par l'économique**

Lejeune R.  
Paris, ed. Syros, 1993, 231 pages  
ISBN 2-86738-913-5  
FR

Proceedings of the European conference on Europe and industry's contribution to integration organized by the Centre des Jeunes Dirigeants de l'économie sociale (CJDES) and the newspaper Le Monde in November 1992. The first part discusses the concept of a contribution by industry to integration in Member States, particularly in France, Belgium, Germany, Spain



and the United Kingdom, attempting to draw conclusions from a European approach. A second section suggests framework data for each country of the European Community: key data, integration initiatives, measures for employment and training. The third part describes the influence of the actions of representatives of various French bodies on the French public administration in the area of industry's contribution to integration. Annexes include a list of various European networks working in this area and a country list of European participants in the organization of the conference.

**Les entreprises face à l'Europe: le défi formation d'Alleward Aciers. Modernisation, développement des ressources humaines et partenariat transnational**

Morin P.; Riera J.-C.

Paris, Racine Editions, La Documentation française, 1993, 94 pages

ISBN 2-84108-001-3

FR

This monograph describes the implementation of innovative concepts in human resources management in a medium-sized industrial enterprise, the establishment of a transnational partnership with a similar company in Germany and the relationship between the two companies. Cooperation between the two companies has led to the establishment of a permanent, open and transnational training scheme.

**Compétences et Alternances**

Jedliczka D.; Delahaye G.

Paris, Liaisons, 1994, 200 pages

ISBN 2-87880-085-0

FR

This book demonstrates by means of diagrams and examples where companies, employees and trainers stand and how they interact in order to construct, manage and develop skills capital in alternance training schemes developed in France. It compares the French situation to Germany and the United Kingdom.

**Workforce skills and export competitiveness: an Anglo-German comparison**

Oulton, N.

London, 1993 EN-

*Gill Chisham, National Institute of Economic and Social Research,*

*7 Dean Trench Street, Smith Square,*

*UK-London SW1P 3HE*

Examines whether the UK's exports are of comparative quality, compares the relevant skill levels in both countries and investigates whether differences in export performance are due to differences in skill levels. Five key export markets were studied in assessing the effects of skill gaps on the relative degree of success of the two countries' exports.

**Citizenship and vocation in the post-16 curriculum in England and Germany: Youth Network Occasional Paper**

Evans K.; Bynner J.

London, 1993

EN

*Sharon Clarke, Social Statistics Research Unit, City University,*

*Northampton Square,*

*UK-London EC1V 0HB*

In England, vocational education is seen largely in terms of equipping young people with skills demanded by employers. In Germany, vocational education serves the broader purpose of preparing young people for citizenship. This view is supported by findings from a study of young people in England and Germany. Using questionnaires and interviews, 16+ year olds were matched in terms of their likely occupational destinations with their counterparts in a comparable town in the other country. One of the main findings is that in buoyant economic conditions, the English pre-vocational system provides the wider range of occupational opportunities. The German system provides institutional support over a longer period, enabling young people to withstand economic and personal difficulties.

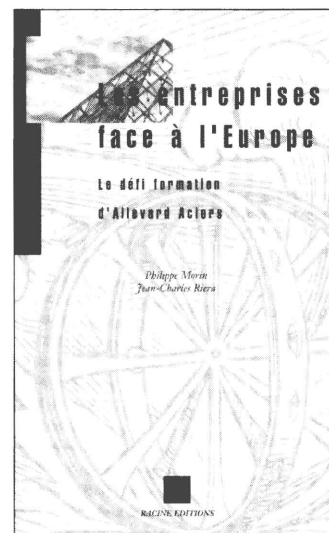
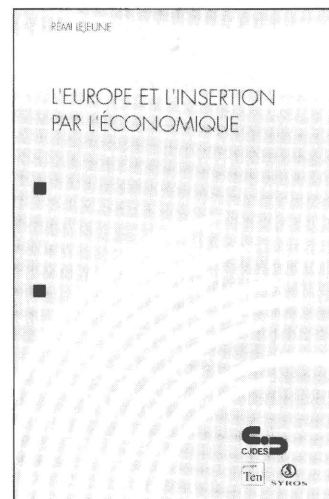
**Modularisation in initial vocational training: recent developments in six European countries**

Raffe D.

Edinburgh, The University of Edinburgh, 1993, unpagged

EN

*Centre for Educational Sociology, Department of Sociology,*





*The University of Edinburgh, 7 Buccleuch Place, UK-Edinburgh EH8 9LW*

This report reviews the experience of modularisation in initial vocational training in six European Community countries. Modularisation has been introduced to diversify vocational education and training (VET) provision. This innovation aims to make VET more flexible and responsive to economic, technological and social change, and to improve its coherence and efficiency as a system. By looking closely at modularisation in six institutions, each in a separate country, the report examines: how widespread is the use of modules in initial VET in EC countries; when they were introduced; what types of courses, for what types of students, have been modularised; how are modules and modular systems designed; what are the objectives and strategies of modular reforms?

**The building labour process: problems of skills, training and employment in the British construction industry in the 1980s**

Clarke L.

Berkshire, Chartered Institute of Building, 1993, unpagéd

EN

*Chartered Institute of Building, Englemere, Kings Ride, Ascot, UK-Berkshire SL5 8BJ*

Results from three research projects (carried out in the 1980s) looking at construction site organisation and training provision have recently been published. They compare site practices in France, Italy, Germany and Britain. The report analyses: concepts of skills and training; the applicability of notions of de-skilling; transferable skills and general/specific skills; changes in the division of labour in the construction industry throughout the 1980s.

**La formation professionnelle en Allemagne: spécificités et dynamique d'un système**

Lasserre R.; Lattard A.

Centre d'Information et de Recherche sur l'Allemagne Contemporaine, CIRAC Paris, 1993

ISBN 2-905518-24-3

FR

Two French authors analyse the success of the German training system, which is essentially based on a strong participation of enterprises in initial training, and take stock of "German-style alternance training". After a brief summary of the history of the system and a description of the institutional framework, the authors examine the performance of this system in view of the quality of training provided, costs and economic feasibility, and finally efficacy in terms of vocational integration. The last section provides an evaluation and looks at future prospects, pointing out advantages and weaknesses.

**Le système dual allemand, fissures et dynamique; quelques enseignements de comparaison internationales**

Drexel I.; Marry C.; Le Tiec C. et al.

Centre d'Etudes et de Recherches sur les Qualifications (CEREQ) Paris, in Formation Emploi no. 43, La Documentation Française, pp. 3-54

ISSN 0759-6340

FR

The French and the German training systems have evolved according to opposing logics. This article begins with a comparison between training and access to employment for master tradesmen (intermediate level between workers and engineers) in France and Germany, followed by a review of the hypotheses presented in the article and a response by the author. Lastly, two articles offer a comparative approach of education systems and vocational integration in Germany and the United States.

**Numéro spécial Europe**

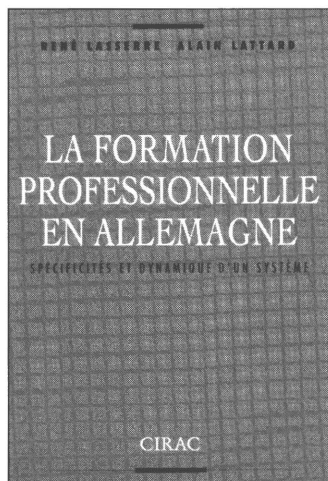
Centre d'Etudes et de Recherches sur les Qualifications (CEREQ)

Paris, 1993, Formation Emploi no. 42, La Documentation Française, 108 pages

ISSN 0759-6340

FR

This issue attempts to take stock of European questions regarding employment and training. Two articles analyze the overall European employment market and the functioning of the national markets, and another seeks to elucidate the current economic integration process in Europe on the basis of a critique of various





approaches. Also presented are the re-training policies of various countries and the issues at stake in the matter of comparability and recognition of qualifications in Europe. Finally, one text deals with vocational training in a transitional stage in Eastern Europe. An extensive bibliography is included.

## European Union: policies, programmes, participants

### Growth, competitiveness, employment. The challenges and ways forward into the 21st century. White paper

Commission of the European Communities Luxembourg, Bulletin of the European Communities, Supplement 6/93, Office for Official Publications of the European Communities, 1993, 160 pages  
ISBN 92-826-7001-5

DA, DE, EN, ES, FR, GR, IT, NL, PT

*A second volume presents contributions from Member States in their original language: Growth, competitiveness, employment. The challenges and ways forward into the 21st century. White Paper - part C; ISBN 92-826-7071-6*

A response to the request from the Copenhagen European Council to the Commission to prepare a White Paper on medium-term strategy for growth, competitiveness and employment. It is based on contributions from the Member States and takes into consideration the debate currently taking place in the various countries between the state authorities and the social partners. Written from a basically economic point of view, the book presents broad guidelines for a healthy, open, decentralized, competitive and solid economy.

### Proposal for a Council decision establishing an action programme for the implementation of a European Community vocational training policy LEONARDO da Vinci

Commission of the European Communities

COM (93) 686 final, 21 December 1993, 61 pages

Luxembourg, Office for Official Publications of the European Communities, ISSN 0254-1491; ISBN 92-77-63077-9  
DA, DE, EN, ES, FR, GR, IT, NL, PT

This proposal fits into the general context established by the White Paper on competitiveness, growth and employment. Based on experience gathered by the various Community programmes for vocational training, this programme's main objective is the implementation of a vocational training policy supporting and complementing the activities of the Member States and the promotion of cooperation between the Member States in order to gradually realize an open space for training and vocational qualifications. The programme creates a joint framework of objectives for Community action. It is divided into three sections: measures to enhance the quality of the systems, programmes and policies of the Member States; measures to support the innovative capacity in activities on the vocational training market; network and accompanying measures - promotion of the European dimension.

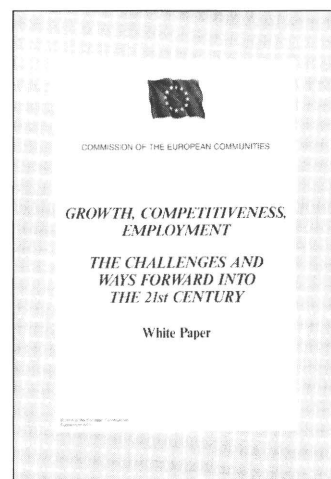
### Proposal for a European Parliament and Council decision establishing the Community action programme "SOC-RATES"

Commission of the European Communities

COM (93) 708 final, 3 February 1993, 78 pages

Luxembourg, Office for Official Publications of the European Communities, ISSN 0254-1491; ISBN 92-77-63808-7  
DA, DE, EN, ES, FR, GR, IT, NL, PT

With this proposal, the Commission wants to reinforce, simplify and rationalize existing Community activities in the areas of education, training and youth. Socrates will promote activities involving transnational cooperation between the Member States. These activities can be classified under three headings: higher education; the European dimension in education; transversal measures for the promotion of foreign language skills within the Community, of apprenticeships and open and distance learning and of information.





**Skills for a competitive and cohesive Europe. A human resources outlook for the 1990's**

Commission of the European Communities - Task Force Human Resources, Education, Training, Youth  
Brussels, 1993, 42 pages  
DE, EN, FR

*EC Commission - Task Force Human Resources, Education, Training, Youth, rue de la Loi 200, B-1049 Bruxelles*

After sketching a general picture of the central role played by human resources in economic and social development, this report takes stock of qualifications: tendencies (professions and sectors), weaknesses, new skills required, prospects, terminology. Possible approaches are suggested to respond to the crucial questions: What should be done to improve the quality of human resources and successfully face change? What reforms are necessary in education and training systems to produce the new qualifications?

**The outlook for higher education in the European Community. Responses to the Memorandum**

Commission of the European Communities - Task Force Human Resources, Education, Training, Youth  
Luxembourg, Office for Official Publications of the European Communities, Studies no. 2, 1993, 70 pages  
ISBN 92-826-6401-5  
DA, DE, EN, ES, FR, GR, IT, NL, PT

The Memorandum on higher education, published by the Commission in 1991, was discussed extensively in all Member States and in the EFTA countries. The responses drawn by this debate are analyzed and summarized in this report. The main elements of the issue are presented in the form of five topics reflecting the most urgent concerns expressed in the responses: cultural aims; mobility and languages; accessibility to students and adults; quality policies; financing.

*Two complementary reports presenting summaries of the responses as well as the topic-based reports are available from Task Force Human Resources in DE, EN, FR: Responses to the Memorandum on Higher Education in the European Community. Summary of national re-*

*ports and reports from European organizations, 1993, 83 pages Theme reports, 1993, special pagination*

**Vers un marché européen des qualifications. Rapport pour la Task Force Ressources Humaines, Education, Jeunesse**

Merle V.; Bernard Brunhes Consultants  
Paris, 1992, 42 pages  
FR

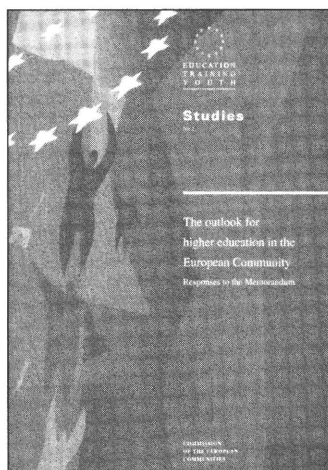
*For sale at  
BBC,  
89, rue du Fg Saint-Antoine,  
F-75011 Paris*

After having specified the various meanings of a European market of qualifications and analyzed the major issues at stake in this regard, the author suggests ways and means for Community action in this area. This analysis, which leads to the formulation of a number of fundamental principles, should form the basis of future reflection on the creation of a European market of qualifications.

**Green paper. European Social Policy. Options for the Union**

Directorate-General for Employment, Industrial Relations and Social Affairs  
Commission of the European Communities  
Luxembourg, Office for Official Publications of the European Communities, 1993, 108 pages  
ISBN 92-826-6897-5  
EN, FR, DE, DA, ES, GR, IT, NL, PT

The intention of the Commission's green paper is to stimulate a wide-ranging debate within all Member States about the future of social policy in the European Union. This debate will be followed by the Commission and used as a basis for discussion together with the White Paper on Growth, Competitiveness and Employment. The Green Paper is divided in three parts. Part one sets out what the Commission has already achieved in this field. Part two looks at the social challenge and examines the risks of declining social cohesion and the threats to important common goals such as social protection and high levels of employment. It focuses on rising unemployment and methods of improving the Community production system in order to assure its competitiveness. Opportunities for youth and equal





opportunities in employment and society for women, the disabled, immigrants, the rural population and the elderly are stressed. Part three discusses the possible responses of the Union to these challenges, both in terms of what Member States want and of what the Community is trying to achieve. The paper ends with a conclusion and a summary of salient questions raised. There are also 5 annexes including: a summary analysis of external contributions; a non-exhaustive list of legislation; the status of initiatives in the action programme to implement the 1989 Social Charter; the European Social dialogue; a list of programmes, networks and observatories.

**Vocational training in the countries of Central and Eastern Europe. What course of action for the European Community? Symposium proceedings, Thessaloniki, 23-24 November 1992**

Commission of the European Communities - Task Force Human Resources, Education, Training, Youth; The Federation of Greek Industries; the Federation of Industry of Northern Greece; The Central Union of Chambers of Commerce (Greece); The Assembly of French Chambers of Industry and Commerce (ACFCI) Paris, ACFCI, 1993, 79 pages  
DE, EN, FR, GR For sale at ACFCI, 45, av. d'Iéna, BP 448, F-75769 Paris Cedex 16

The aim of this symposium was to evaluate the assistance in training matters offered by the European Community to Eastern European countries in the course of the last three years and to identify the conditions for longer-term involvement. The texts of the opening and closing speeches are published in this report, as well as a summary of activities involving the identification of needs, the evolution of vocational training systems and the upgrading of human resources within economic and social development.

**PETRA 6. Qualitative aspects of alternance based vocational education in Portugal and Denmark. Product report. Second year partnership Portugal-Denmark.**

Houman Sørensen J., Magnussen L., Novoa A, etc.

Statens Erhvervspædagogiske Læreruddannelse; Universidade de Lisboa - Faculdade de Psicologia e de Ciências da Educação

Copenhagen, 1993,  
205 pages EN

*The Royal Danish School of Educational Studies for Teachers at Technical and Commercial Colleges (SEL), Rigenstgade 13, DK-1316 København K*

**La formation permanente des travailleurs: défis et stratégies, le rôle des partenaires sociaux**

Blanpain R.; Engels C.

Instituut voor Arbeidsrecht, Katholieke Universiteit Leuven (KUL), Task Force Human Resources, FORCE

Brugge, Die Keure, 1993, 189 pages  
ISBN 90-6200-690-6

FR

This study on the role of the social partners in ongoing vocational training is part of the broader context of analyses carried out by the European Community - FORCE programme - on collective wage agreements involving ongoing vocational training in the Member States. This Belgian study, based on the overall European context, examines the extent to which worker and employer representatives undertake joint activities in the area of ongoing training for workers; it stresses the more interesting and more innovative examples of such activities.

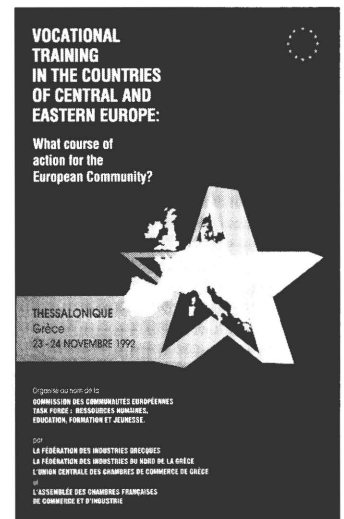
**A report on continuing vocational training in Denmark. Force Article 11.2**

Nielsen, S.P.

Statens Erhvervspædagogiske Læreruddannelse; Commission of the European Communities - Task Force Human Resources, Education, Training and Youth  
Copenhagen, 1993, 130 pages; 56 pages EN (part 1), DA (part 2)

*The Royal Danish School of Educational Studies for Teachers at Technical and Commercial Colleges (SEL), Rigenstgade 13, DK-1316 København K*

In this report prepared by SEL for the Commission as part of the FORCE programme there is a systematic presentation





of the Danish system of continuing vocational training (CVT). Part one is a national monograph containing a description and analysis of the overall system. Part two gives a systematic presentation of new Danish CVT initiatives and activities undertaken during the last couple of years. The Danish government has decided to double the number of CVT places available between 1994 and 2000. The new instruments and measures in Danish CVT policies are discussed in the report.

**Comett in Italia. Analisi della partecipazione italiana al programma comunitario**

Pitoni I.; Tomassini M.; Scongiaforno C.  
Istituto per lo sviluppo della formazione professionale dei lavoratori (ISFOL)  
Milan, Angeli, 1994, 148 pages  
ISBN 88-204-8108-1  
IT

This research project provides an evaluation of Italian participation in the COMETT Community programme, which is dedicated to cooperation between universities and industry in terms of technological training. Experiences gathered from COMETT in its seven years of operation constitute an excellent sample of results which, if analyzed, can provide useful information for new Community directions in the area of training. The text of the report aims at showing possibilities, problems and development prospects arising from COMETT activities in the field of structures and training products implemented. What emerges is a complex framework of the significant results of Italian participation in COMETT.

**Esperienze e prospettive di innovazione della formazione professionale. Atti della Conferenza Eurotecnet in Italia (5-6 novembre 1992)**

Tomassini M.; Nanetti M.; Turrini M.  
Istituto per lo sviluppo della formazione professionale dei lavoratori (ISFOL)  
Milan, Angeli, 1993, 256 pages  
ISBN 88-204-8101-4  
IT

In this work, innovation has the meaning given to the term by the conference held in Rome in the autumn of 1992: not only a response to the need for change, but above all the production of new learning

models. The text is divided into two parts: the first consists of the proceedings of the conference, while the second presents a list of monitoring activities for training projects which at the time were part of the Italian section of Eurotecnet.

**Euroqualification info 1**

Euroqualification  
Brussels, Euroqualification, 1993, 68 pages  
DA, DE, EN, ES, FR, GR, IT, NL, PT  
*Available free of charge from Euroqualification, rue Duquesnoy 38 - Boîte 13, B-1000 Bruxelles*

Euroqualification is an initiative of thirteen national training and vocational qualification organizations in the twelve countries of the European Community. The programme was financed jointly for three years; its objectives are to develop the European dimension of training for 6000 trainees in 40 trades and 12 vocational areas on the basis of a partnership between enterprises to facilitate worker mobility. This document presents the vocational areas selected and the partner training organizations.

**Partenariats européens: les opérateurs français dans les programmes communautaires de formation professionnelle. Ouvrage collectif**

Paris, Editions Racine, La Documentation française, 1993, 158 pages  
ISBN 2-84108-000-5  
FR

Transnational projects are an essential tool in the construction of European training. This book analyzes the stakes, the creation, the implementation and the results of such partnerships. A second part reports on some twenty experiences presented on the basis of the evaluation matrix developed by Racine (Réseau d'Appui et de capitalisation des innovations européennes).

**De invloed van het Europees Gemeenschapsrecht op het onderwijsrecht in de Vlaamse Gemeenschap, Eindrapport, Deel I: teksten, Deel II: documenten**

Verbruggen M. Katholieke Universiteit Leuven (KUL), Faculteit Rechtsgeleerdheid Leuven, 1992, 189 pages + annex





NL

*KUL - Faculteit Rechtsgeleerdheid,  
Tiensestraat 41, B-3000 Leuven*

This report summarizes the results of an in-depth study on the jurisdiction of the European Community in the field of teaching. It then analyzes amendments made to the Maastricht treaty explicitly giving the Community areas of jurisdiction connected with teaching. Finally it describes: access to education and the place of teachers within European educational policy. Data on the sources of European law and important legislation affecting teaching conclude this report.

**Professionalisierung gesundheits- und sozialpflegerischer Berufe - Europa als Impulse? Zur Qualifikationsentwicklung in der Human-Dienstleistung. Qualifikationsforschung im Gesundheits- und Sozialwesen**

Becker W.; Meifort B.

Berlin, in: *Berichte zur beruflichen Bildung* (Volume 159) Bundesinstitut für Berufsbildung (BIBB), 1993, 199 pages  
ISBN 3-38555-530-1

DE

*BIBB, Febrbelliner Platz 3,  
D-10702 Berlin*

Two aspects stand out particularly in the changes affecting professions in health care and social work: (1) A change is taking place in the concept of care and in the definition of scientific standards for care as a science. (2) The Europeanization of vocational training and vocational development requires, here as elsewhere, pan-national recognition of vocational qualifications, which involves freedom of vocational establishment. This volume deals with a number of connected issues. From the point of view of a single domestic market, it discusses questions of initial and ongoing training and its quality, teacher training and qualification requirements in health care and social work professions.

**Leitlinien für die Gemeinschaftsaktion im Bereich allgemeine und berufliche Bildung**

Bonn, in: *Drucksache/Deutscher Bundestag* (12/6437), Deutscher Bundestag, 1993, 21 pages

DE

*Deutscher Bundestag, Bundeshaus -  
Drucksache, D-53113 Bonn*

This report presents the result of a discussion of the guidelines of the European Communities Commission for Community action in the field of general and vocational education in the Committee for Education and Science of the German Bundestag. The Committee welcomes pan-European development and considers it necessary to evaluate both the positive and negative results of the European action programme in the educational area. The German Bundestag has therefore asked that the programme be extended at least until the end of 1995. The paper includes the guidelines for Community action in the area of general and vocational education, a description of action programmes in the area of general and vocational education and the third chapter of the European Union Treaty (Education, vocational training and youth).

**Berufliche Weiterbildung in der EG - Impulse und Herausforderungen**

Bundesinstitut für Berufsbildung (BIBB)  
Bielefeld, in: *Berufsbildung in Wissenschaft und Praxis* (special publication with Volume 6), W. Bertelsmann Verlag, 1993, 24 pages

DE

*Bertelsmann Verlag, Postfach 100633,  
D-33506 Bielefeld*

This special publication of the journal "Berufsbildung in Wissenschaft und Praxis" presents four articles on topical issues in vocational ongoing training before the backdrop of the political and economic tendencies in Europe. Opinions on ongoing training are discussed from the point of view of the German states by Hamburg's Senator for School and Vocational Education, Rosemarie Raab, and from the federal point of view by Fritz Schaumann, state secretary in the Federal Ministry for Education and Science. The contributions by the General Secretary of the Federal Institute for Vocational Education (BIBB), Hermann Schmidt, and by Uwe Grünwald / Edgar Sauter, employees of this institute, present the European dimension of ongoing training in the Federal Republic of Germany. These articles show that other countries have already





found accepted solutions to questions which are still the subject of heated debate in Germany. At the same time, they

describe the systematic difficulties inherent to a close comparison of educational systems in the European partner countries.

## From the Member States

### **F** Modernizing without excluding

Schwartz B.; Lambrichs L. (Coll.)  
Paris, La Découverte, 1994, 245 pages  
ISBN 2-7071-2301-3  
FR

On the basis of his long experience, the author intends to demonstrate that there are solutions to the problems of exclusion and unemployment. He then analyses training programmes against exclusion carried out in France, such as, for instance, the "Nouvelles Qualifications" programme, and reflects on the traps involved in mechanization.

### **La bataille de l'apprentissage, une réponse au chômage des jeunes**

Cambon C.; Butor P.  
Paris, Descartes, 1993, 194 pages  
ISBN 2-910301-04-4  
FR

In spite of the various measures intended to popularize it, apprenticeship remains little known. Through statements from apprentices and professionals, the authors plead for a recognition of the apprenticeship system as a true training path. They recommend reinforcing and decentralizing the vocational training system in favour of the regions as well as greater involvement of local enterprises.

### **Répertoire Opérationnel des Métiers et des Emplois (ROME)**

Agence Nationale pour l'Emploi (ANPE)  
La Documentation française, 1993, 4 vol-

umes, 280 pages + 264 pages + 280 pages + 495 pages  
ISBN 2-11-002991-9  
FR

The new ROME classification reorganizes trades and professions into vocational fields. It consists of four volumes. The dictionary of jobs/trades in the services sector and the dictionary of technical and industrial jobs/trades include 466 entries of jobs/trades with details on the contents of the work, the required competence levels, the working conditions and the conditions of access to the job/trade. The access key to the ROME directory is the alphabetical index of names, which lists 10,000 frequently used names of trades and jobs. Sections on vocational mobility offer guidance and evolution paths.

*The National Employment Agency (ANPE) has dedicated number 6 of its journal "Grand Angle" to the genesis, concept and preparation of this product as well as to the issues of competence and previsional management of qualifications. Distributed by ANPE, 4, rue Galilée, F-93198 Noisy-le-Grand cedex.*

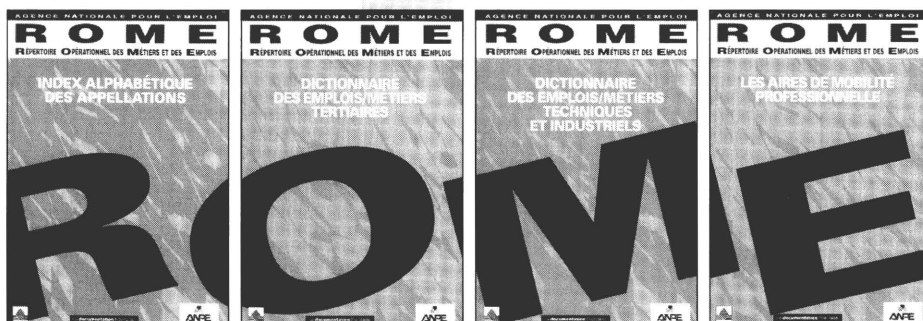
### **Entreprises et métiers demain**

Office national d'information sur les enseignements et les professions (ONISEP)

Conseil national du patronat français (CNPF) Paris, Les dossiers de l'ONISEP, 1993, 126 pages  
FR

ONISEP, 50, rue Albert, F-75013 Paris

This document takes stock of the situation and the economic environment of enterprises, competence levels required in the world of employment, the training-employment relationship, prospects of employment and training needs at the dawn of the 21st century. Twenty-one vocational sectors, represented by their professional associations, are then dis-





cussed, as well as the evolution of trades and the diplomas giving access to them.

Education and training policies for economic and social development  
National Economic and Social Council, NESC  
Dublin, 1993, NESC Report 95  
ISBN 0-907116-79-5  
EN

This is a report of some significance for education and training policies in Ireland. It analyses the actual and potential role of education and training, and vocational education in particular, the extent to which access to education and training for the disadvantaged has widened and equalised over recent decades and the role of higher education. It draws some conclusions on the importance of education and training for increased productivity and economic performance and makes a brief comparison with Denmark and the Netherlands.

### **IRL** The chemical and allied products industry in Ireland, a sectoral study of employment and training needs to 1997

Dublin, the Training and Employment Authority (FAS), 1993, 156 pages  
EN  
FAS, 27-33, Upper Baggot Street, IRL-Dublin 4

This study is one of a series of sectoral studies being undertaken by FAS - The Training and Employment Authority. Its purpose is to gain a deeper understanding of the strategic position and future prospects of Irish industry in the 1990s, particularly in the context of the development of the Single European Market and changes in the structures and strategies of global industries. An analysis of the state of the chemical industry is followed by identification of likely future manpower and training needs and recommendations for the provision or modification of such training by FAS, third level educational establishments and other recognised bodies.

### **Report on the National Education Convention**

Coolahan J. (ed.) Dublin, National Education Convention Secretariat, 1994, 244 pages  
EN  
Government Publications, Sun Alliance House, Molesworth Street, IRL-Dublin 2

This convention, which was held over nine days in Dublin in October 1993, is the penultimate stage in a process of consultation with all interested parties, which will culminate in the publication of a White Paper on Education later this year (1994). This will direct the course of Irish education into the next century. Among other recommendations, the Secretariat advocates that specific targets of reducing inequality should be set as the costs of educational failure in terms of social welfare and health costs are so great. There is a need for a rationalisation of the accreditation system which takes account of vocational and non-vocational education and of formal and non-formal education.

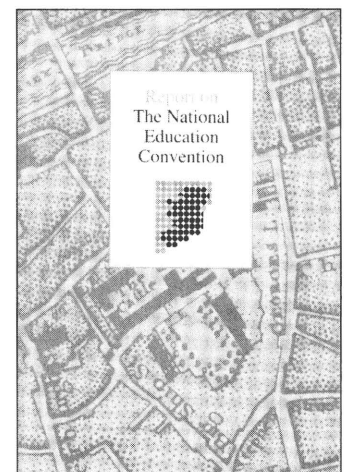
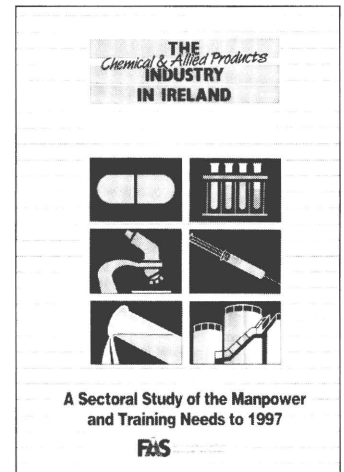
### **PT** O sistema de aprendizagem em Portugal - Experiência de avaliação crítica

Neves A. et al. Lisbon, Instituto do Emprego e Formação Profissional (IEFP), 1993, 297 pages  
ISBN 972-732-071-6  
PT

This study of the Portuguese apprenticeship system presents: the socio-economic and institutional framework out of which the system arose; a brief description of the system; its evaluation from the point of view of its results and objectives; an analysis of the participatory processes involving the enterprises in the programme; and finally, a number of recommendations with the aim of reinforcing the alternance training system.

### **UK** Making labour markets work: Confederation of British Industry policy review of the role of Training and Enterprise Councils and Local Enterprise Companies

Confederation of British Industry  
London, 1993  
EN





*Confederation of British Industry, Centre Point, 103 New Oxford Street, UK-London WC1A 1DU*

**Local empowerment and business services: Britain's experiment with Training and Enterprise Councils**

Bennett R.; Wicks P.; McCoshan A.  
London, University College, 1993, 352 pages  
ISBN 1-85728-144-6  
EN

In recent years, training policy in Britain has been characterized by decentralization and the development of the TECs (Training and Enterprise Councils) in England and Wales and LECs (Local Enterprise Companies) in Scotland. Much has been written on these developments, but the two publications above are of particular interest.

The CBI report focuses on policy issues which the authors think need to be addressed if TECs and LECs are to be given the chance to succeed. These include defining more clearly their mission and role, ensuring their funding, securing their local accountability and reducing their bureaucracy. The report makes a number of recommendations.

The UCL (University College, London) study is an authoritative account of why the problems of the British economy re-

quire local institutional reform and it presents the case for empowering business-led local development bodies. Detailed evaluation is made of each field of TEC and LEC activity as well as their management, personnel, finance and unit costs. The book is based on large scale research surveys. It examines TECs and LECs as an attempt to overcome economic supply-side deficiencies and concludes with assessments of how gaps in this strategy can be overcome, how business links through local "one stop shops" can be developed, and what needs to be done by government in order to fully empower business as a local development agent.

**The National Curriculum and its Assessment: Final Report**

Dearing R.  
London, Department for Education, 1994  
ISBN 1-85838-030-8 EN

This influential report, requested by the Department for Education, reviews the ten national curriculum subjects in secondary education and criticises many of the educational reforms that had been implemented over the last few years. It suggests what changes need to be made in order to improve the system and these include the slimming down of the curriculum simplifying the testing arrangements and improving general administration.



### Outcomes : NVQs and the Emerging Model of Education and Training.

Gilbert Jessup

London, Falmer, 1991

Depending on your point of view, the United Kingdom is either the odd man out in Europe or it is leading it into the future. Most EU training systems are putting more emphasis on the notion of 'competence', but the UK is distinctive for its whole-hearted adoption of the competence-based approach (with the partial exception of Scotland, where the approach is similar but less extreme). Gilbert Jessup, now Deputy Director of the National Council for Vocational Qualifications (NCVQ), is a leading architect and philosopher of this movement. I recommend this book to other Europeans who want to understand the thinking behind the UK's approach - and perhaps especially to those who doubt if there is any thinking behind it.

As the book's title suggests, the basic idea is that a training system can be designed, monitored, regulated and funded on the basis of the outcomes of learning, rather than the 'inputs' such as the institution, syllabus, duration and mode of learning. Following this principle, one can devise a flexible and coherent system which brings together different forms of learning and links education and training. There is wide access to learning, certification and progression. The system is customer-driven rather than provider-driven.

On paper it seems wonderful. But does it work? In making his case, Jessup makes a number of assumptions.

First, he assumes that we can specify, clearly and very precisely, all the outcomes required for competence in an occupation (or, indeed, for any other educational purpose). To the extent that we cannot, perhaps it is reasonable to trust in 'inputs' - for example to rely upon minimum periods of work experience to absorb the less tangible social skills and knowledge required in a job.

Then there is the assumption that all outcomes can be perfectly assessed. Jessup has had long debates with his UK critics over whether assessment under the NCVQ's system is more accurate than

under traditional systems. But much of this misses the point: all assessment systems have weaknesses, but these weaknesses are much more serious in a training system that is based upon the accurate specification and assessment of outcomes.

And there are assumptions about the way the training system works. For example, Jessup fails to recognise that the credibility and status of a certificate may be as important as the validity of assessment; he takes no account of how certificates are used in the labour market (often to compare and select workers, rather than to indicate competences in detail); and he ignores the potential for abuse within an outcomes-led system (for example, when outcome-related funding rewards assessors for positive assessments, or when funders of training use the outcomes approach as an excuse for under-funding the necessary 'inputs').

Other critics have focussed on the NCVQ system as it is implemented, rather than as presented here in the abstract. Yet the model has its strengths; could a less extreme approach, which recognised the importance of 'inputs', achieve the advantages of the outcomes approach without its disadvantages? Jessup writes with clarity as well as enthusiasm. This is a much fuller and more explicit statement than we usually find of a current policy and the thinking behind it; if we find the philosophy deficient, we should at least be grateful to Jessup for exposing it so clearly.

*David Raffe*

*Centre for Educational Sociology,  
University of Edinburgh*

### ■ Social competence: the potential for entrepreneurial and personal success

Werner G. Faix; Angelika Laier

Wiesbaden, 1991

The study assumes that currently companies are operating under economic conditions which have changed substantially. Success is no longer guaranteed by the use of modern technology alone; skilled workers are becoming an increasingly important factor. Against such a background the study attempts to elucidate the concept of social competence and to show



interdependencies between individual, labour and the environment. The authors assume that social skills are closely linked to the ability to cope with the future. For this reason they recommend that greater attention is paid to such skills throughout life and that these are nurtured both at school and in working life.

■ **On teaching competences in vocational training**

Günter Pätzold

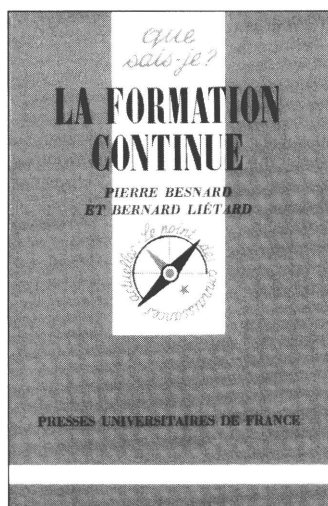
In: Rolf Arnold; Antonius Lipsmeier (Ed.):  
Vocational training  
Opladen, 1994 (in preparation)

■ **A Didactic Preliminary Study of a project-oriented model of basic vocational training (in the metal-processing sector)**

Günter Wiemann, et al.  
2nd edition, Berlin, 1976

This study develops the tools of vocational competences. The three main aspects of competence - specialist competence, social competence and planning competence - have long since been examined in literature. The study also lays the theoretical basis for self- and group-controlled learning.

*Reinhard Zedler*



**Publications received by the editorial office**

**La formation continue**

Besnard P.; Liétard B.  
Paris, PUF (collection Que sais-je?), 1993  
- 4th edition - 127 pages  
ISBN 2-13-046015-1  
FR

**L'alternance école-production.**

Companies and the training of young people since 1959  
Monaco A.  
Paris, PUF (collection L'éducateur), 1993  
227 pages  
ISBN 2-13-045737-1  
FR



## Members of CEDEFOP's documentary network

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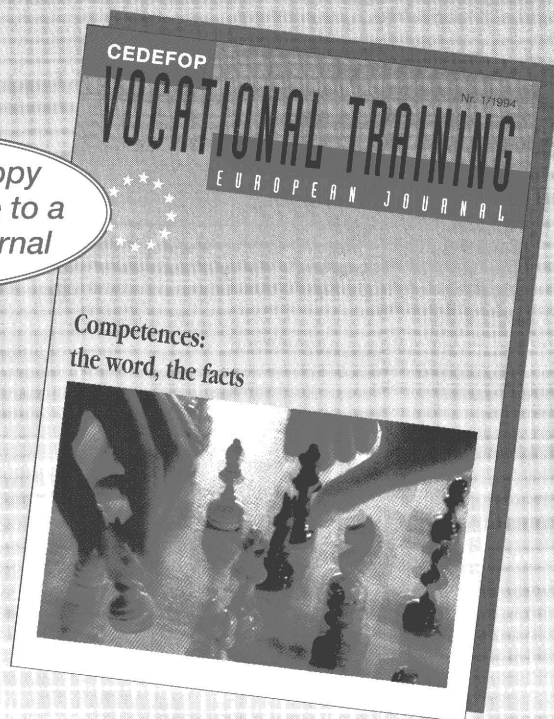
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