

Alan Brown (Ed.) and PARTICIPA
project consortium:

Participation in Continuing Vocational Education and Training (VET): a need for a sustainable employability. A state of the art report for six European countries.

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Alan Brown, Eduardo Figueira, Peter Kaune

Introduction

Participation in Continuing Vocational Education and Training: a need for a sustainable employability (PARTICIPA) is a research project funded in the Fifth Framework Programme of the European Commission. Project partners from six European countries are seeking to identify the factors influencing technical workers' CVET participation in Small and Medium Enterprises (SMEs). In order to do so, all of them are investigating two different sectors in the regions involved.¹ The IT-sector with its increasing importance in European economy and with its strong impact on most other sectors will be investigated by all partners. The second sector investigated varies between partners depending on its regional importance and other contextual factors. This publication is the first in a series of three documenting the project's proceedings.

This State of the Art report is the result of a bibliographic overview prepared by all the partners involved in research on participation in Continuing Vocational Education and Training (CVET). This review therefore draws upon findings from Germany, Greece, Italy, Portugal, Spain and the United Kingdom.

Adult education is concerned with formal or non-formal learning processes through which adults develop their skills, widen their knowledge, perfect their technical and professional qualifications and are oriented towards the simultaneous satisfaction of their own needs and those of their societies. Adult Education and Training could then be considered as the set of interventions which, through the synergetic reinforcement and complementarity with institutions and initiatives in education and lifelong learning, are devised to upskill and raise the educational and qualification levels of the adult population and to promote personal development, active citizenship and employability.

The Lisbon Summit, held in 2000, designated a strategic objective for the European Union: to make a competitive and dynamic knowledge-based economy able to promote sustainable economic growth with more and better employment opportunities and social cohesion. This objective required a general strategy aimed at preparing the transition to a knowledge-based economy, promoting economic reform for competitiveness and innovation, renovating the European social model by investing in people and fighting social exclusion, and continuing with a mix macro-economic policies for sustainable development.

In this strategic framework education and training has a fundamental role, as a means to evolving towards an innovation- and knowledge-based society, oriented towards the creation of better jobs and the preparation of human resources able to be at the centre of the demands of a new and more competitive and dynamic economy.

During the current decade Adult Education and Training has undergone significant changes and experienced a huge growth in scope and scale. In societies based on knowledge emerging throughout the world, continuing adult education has become an imperative, both in the community and in the workplace. From the new demands brought about by society and professional life derive expectations, which require, theoretically at least, from each and every agent, the permanent renovation of skills and competence throughout life.

The level of qualification of people and the capacity to keep them continuously qualified constitutes the basis for the success of the socio-economic development in any

¹ The regions covered by this study are: Alentejo, Lisbon (Portugal); Extremadura (Spain); Coventry (UK); Rome (Italy), Athens (Greece) and Bremen (Germany)

region. This condition is more relevant for the less developed European regions, where the majority of people of working age have relatively low levels of qualification and the level of business activity is relatively low when compared to the situation in more developed regions. However, the continuing training opportunities on offer are also important for the more developed European regions.

Training can play a key role in the consolidation and construction of people's working identities, as education is an "activity oriented towards the promotion of the development of human beings and their integration in society" (Laeng, 1973: 141), facilitating the transmission of knowledge aimed at the development of the individuals' intellectual capacity. In other words, the objective of professional training is to help individuals develop both professional skills and general and social competence, thus promoting the enhancement of the skills required for the effective accomplishment of professional and social 'tasks'. Professional training "...is planned and outlined in a systematic way, intent on the modification of a given behaviour or set of behaviours, in a labour situation through the transmission of knowledge or rules, which may allow for the better performance of the workers and the improvement of their performance regarding organisational efficiency." (Leitão, 1996: 8).

In the last few years, professional training, coupled with guidance support, has asserted itself as an area undergoing steady expansion, resulting in the enrichment of human resources, focusing on the acquisition of competence and professional skills. "Training may be seen from different points of view as a perspective of change in labour and organisations, grounded on human values and on the democratic process; and/or as an instrumental perspective on the improvement of competitiveness; and/or from the perspective of social and cultural changes or even from a legal-formal perspective" (Kovács, 1994, quoted in Santos, 1999:48).

The main purpose of professional training relates to education, training and the openness of people to new practices, new attitudes and new activities, so that they may, in future, may be more easily integrated in their work place, whether at the level of their relations with colleagues and employers, or in their relationship with the essence of their profession. It is essential that workers perform their activities in an effective manner, for which they require the mastery of a continuing work process knowledge that includes understanding the evolution of technologies and changing market demands.

When discussing professional training one must bear in mind that one is dealing with a delicate and complex issue, since people are the reference for this theme. It is people who occupy a key position in this process in their workplace, inasmuch as professional training "...is a strategic management instrument, whether for a profit-oriented company or for a non-profit institution, regardless of its dimension, in that it intervenes over its key factor: Human Resources" (Cardim, L., 1993: 6). The new understanding of professional training has arisen from the "... crisis in the bureaucratic system and the deep changes it caused in the organisational world" (Barrosa, 1991:26). The crisis has demonstrated that professional learning in organisations has not had the capacity to comply with current changing requirements.

The new paradigm for development, which is based on professional training, enables the shift to a new phase of development, increasingly based on qualitative factors rather than quantitative ones. Professional training not only deals with the provision of knowledge but also with new behaviours and new values in both the workplace and society. According to Lawler, "Training must be thought according to the encompassing idea that a competitive organisation is the one that learns" (Barrosa, 1991:27).

For a long time, employers saw professional training as a liability. Therefore "training was conceived of as an activity which, in most cases, had to be undertaken outside companies and performed by 'training agents', who traditionally provided courses often

inevitably lacking a connection with the working activity" (Barrosa, 1991:27). Nowadays, professional training has increasingly been understood as "one of the bases for evolution as a component of a development policy, thus overcoming the conceptions reading it as a factor of personal politics" (Barrosa, 1991:28). Training should unre-servedly contribute to the efficiency, change and development of organisations, achieving an increasing importance in the new wave of training activities.

For the achievement of a developmental policy (economic, social, psychological), permanent and continuing education must be created for everyone, since development is a variable depending on training and education. Currently, it is increasingly believed that education and training must, among other goals, exist in the service of employment, offering opportunities for individuals to experience a much-desired degree of satisfaction and motivation, thereby contributing to their feeling useful to society.

Analysing and understanding the nature of the factors and the relationships associated with adults' active participation in training activities constitutes an important basis for the formulation of adequate and effective development policies and strategies aimed at different social and professional groups. In addition, this understanding is fundamental both to create measures and tools to improve the quality of human resources, and to define policies and strategies for structuring and organising continuing training systems, which are aimed at adapting the nature of the training offer to the training demand. On the other hand, knowledge and understanding of the phenomenon of participation in training activities allows policy-makers to devise and implement robust strategies meant to attract the active population in general and particular targeted professional groups to the idea of the importance of their continuing and systematic participation in learning activities. In addition, understanding participation, and the role of the factors that may influence that participation, facilitates the definition of training programmes appropriate for needs and sensibilities of the adults actively engaged in learning.

This State of the Art Report provides a bibliographic overview concerning research on participation in CVET carried out by each of the project partners in their own country. The partnership decided to produce separate but related State of the Art reports, since it is important to display the diversity of practice in different regions. Consequently, the document is divided, beyond the Introduction and Final Remarks, into six parts corresponding to the state of the art in Germany, Greece, Italy, Portugal, Spain and the United Kingdom.

Phillip Grollmann, Peter Kaune, Roland Tutschner

1 Germany

1.1 Participation of technical workers in continuing and further education and training in Germany – A literature and research review

1.1.1 Adult education and lifelong learning in Germany

As in most countries the topic of further and continuing education has received considerable attention over the last ten years. 'Lifelong learning' is seen as one of the core factors for economic success on the individual level as well as on organisational and national level. This is due to demographic changes and to the increasing speed of technological and socio-economic change. However, the insight into the necessity of life-long learning is not (yet) accompanied with sustainable political actions and decisions.

1.1.2 Terms and meanings – different systems and different discourses

Questions of further and continuing education in Germany have never played such a big role as they do today. The educational system and also the family and individual educational motivations and aspirations are strongly shaped by a concentration on a substantive base of initial education and training, for the case of technical workers usually in the dual-system. The classical career pathway in terms of formal further and continuing education possibilities and qualifications then would be some further technical education to become a technician and – especially in the crafts and trades – afterwards a Meister.

The systems' traditional concentration on initial education (cf. Dikau, 1995) can also be seen in the BbIG², the federal law on vocational education and training, which broadly speaking has not had any considerable effects on the domain of further or continuing education. The discussion on education taking place in an individuals' life after finishing the formal, initial education within the system for a long time concentrated on the rather emphatic term *Erwachsenenbildung* (adult education), which as opposed to *Berufliche Fort- und Weiterbildung* (literally continuing and further education), rather connotes with democratic, liberal and political (sometimes workers') education. The concept of *Erwachsenenbildung* is also closely related to the the right of employees for *Bildungsfreistellung* (paid educational leave) which exists in the majority of German Länder and gives employees the right to leave the work place for educational activities for a certain period of time each year without using up their holiday entitlement.

Berufliche Fort- und Weiterbildung is related to aspirations of people for promotion and / or career development. Whereas *Weiterbildung* rather connotes activities involves widening the educational background on the horizontal axis whereas the term *Fortbildung* is strongly connected to promotion effects of additional educational activities and measures. Sometimes the distinction is also made between *Aufstiegsfortbildung* and *Anpassungsfortbildung*, of which the latter denotes educational and training activities serving the purpose of keeping up to date with, for example, technological changes.

Furthermore there is the concept of *Umschulung*, which covers activities in which an individual changes from one occupation to another – e.g. because of structural

² Berufsbildungsgesetz

changes – and therefore has to undergo training measures, often financed through the Bundesanstalt für Arbeit (BA: Federal Authority for Employment). Purposes here are the re-integration of the unemployed into the employment system (e.g. women returning to work after a break for family formation activities), occupational rehabilitation for people with special needs or re-integration of released prisoners. This topic will be a focus of attention, because of a currently ongoing discussion on the efficiency of the employment service.

The legal structures for C(V)ET, in the broad sense comprising all the different sub-systems mentioned above, are laid down in the Act on Vocational Education and Training (Berufsbildungsgesetz, BbiG), the social security laws (Sozialgesetzbuch III) and in some federal Länder – especially those which traditionally have a strong social democratic tradition – the laws on further education (Bildungsfreistellungsgesetze, Weiterbildungsgesetze).

1.1.3 Responsible Bodies and Institutional Providers of CVET

Needless to say, an important type of organisation carrying out or commissioning measures of CVET are companies. In addition there are centres financed and steered through networks and associations of companies, e.g. of a specific sector or through the chambers of crafts and commerce. According to a study of the employers' Institute for Social and Economic Research the amount of money spent for CVET activities has increased dramatically over the last 20 years. Private and public enterprises' share of the total costs for CVET make up two thirds, i.e. € 24 billion (Weiß, 2000).

On the other hand, there is a plethora of agencies and organisations which in their origin served welfare, non-profit purposes. The range of institutions in this field varies from educational associations of trades' unions, religious or charity organisations to public vocational schools and departments for CVET of the universities. A lot of the actual goal setting of these institutions is not necessarily rooted in their institutional origin but in the sources of budgets for their activities, the BA for example plays a major role in this field. The total costs of CVET activities of the BA made up about € 7 billion and in addition there is individual spending of about the same amount (all figures from 1998 according to Weiß, 2000).

1.1.4 The demand side

The fragmentation concerning CVET in Germany is also reflected in a segregation of political and scientific discourses. This is valid for the discussions in all spheres of further, continuing and adult education, but also for the discussion on learning in general, as there is relatively little communication between the experts of initial vocational education and those interested in further and continuing vocational education (Grollmann, Kruse, & Rauner, 2001). Very broadly speaking the typical strands of discussion in the CVET discourse are one which conceptualises CVET mainly as a strategy of Innovation and Business Re-engineering (Staudt, 1993, 1996) and one which stems rather from the 'adult education' sphere and connects the topic to liberal goals and the development of individual identities (Siebert, 1993). Of course this very broad classification can be broken down in a number of subsets and also blends of the two perspectives. In this paper we restrict ourselves only to characterise the situation in terms of empirical research results and not the whole academic discussion.

Even though the postulate of a need for life long learning has been accepted in Germany for several years, individuals' willingness to participate is still limited. Often continuing vocational education and training is seen as an obligation, which is either accepted as something unavoidable or rejected (Kuwon, Gnahn, Kretschmer, & Seidel, 1996).

Studies of Weltz et al. (1973) and more recently of Kuwan (1990) identify almost the same reasons for staying away from continuing VET. The readiness for participation

depends to a very high extent on its usability. Participants' as well as non-participants' basic position towards CVET could be described as reserved.

Kuwan suggests that unless a concrete threat is perceived and as long as superiors do not insist on participation or even arrange it, employees do not adequately respond to changes in their working place. In such situations they do not see a need for re-training or additional vocational education. Only if one of the above mentioned conditions can be stated does an employee feel the need to participate in CVET. In this context it is important to realise that the vast majority of workers do not perceive participation in further vocational training as something pleasant compared to participating in various measures in general further education. Consequently Kuwan develops the model of a 'dual motivation structure' of CVET participants: On one hand there is the traditional model of a voluntary participation. On the other hand a second model originates from an (individual) subjective feeling of a compulsory continuing vocational education and training.

Motivation for participation and non-participation in CVET mainly has been discussed and investigated in the light of goals which had been set externally (cf. Bolder, Hendrich, & Spindler, 1996). This is true for the reports of the Bundesanstalt für Arbeit as well as for various studies on in-company-training from the 1970s and 1980s (Weltz et al., 1973; Winter & Tholen, 1979). All of them refer to a very narrow range of continuing vocational education. Usually they only consider companies' or industry-wide needs for qualification corresponding with technical innovation. According to Lisop (1989), however, the demand for participation in continuing vocational education and training is not caused by an inevitable technological development but by decisions led by private yield expectations.

In our economic system this is naturally acceptable for people who wish to improve their income (and their career chances). However, the expectations are valid for all employed people. Employees are forced to invest more and more time and (due to the increasing market orientation of CVET in Germany) money in order to adjust their abilities to new needs just for a higher probability of staying employed (Bolder & Hendrich, 2000).

Geissler and Heid (1987) criticise the new developments in German CVET. They develop the thesis of "victims of the new offensive of qualifications"³ which emphasises the pressure on individuals caused by the postulate of need for Life Long Learning. Whereas in the past, diplomas gained in the traditional dual VET system (as part of an intensive initial education and training) had been convertible and generally accepted on the labour market, nowadays the demand for specific qualifications weakens the position of people offering more general qualifications in the labour market. According to Geissler the market value of a qualification could even get lost because individuals permanently need to run supplement it as part of a process of qualifications inflation.

Despite a growing participation rate in Germany the paradox between the society's demand for CVET and many individuals refusal to participate still exists. The gap between participants and non-participants remains stable if it is not even growing (see Behringer, 1998). In order to close this gap, it seems necessary to identify the obstacles and barriers against participation from a different point of view.

1.2 Recent trends and points of discussion

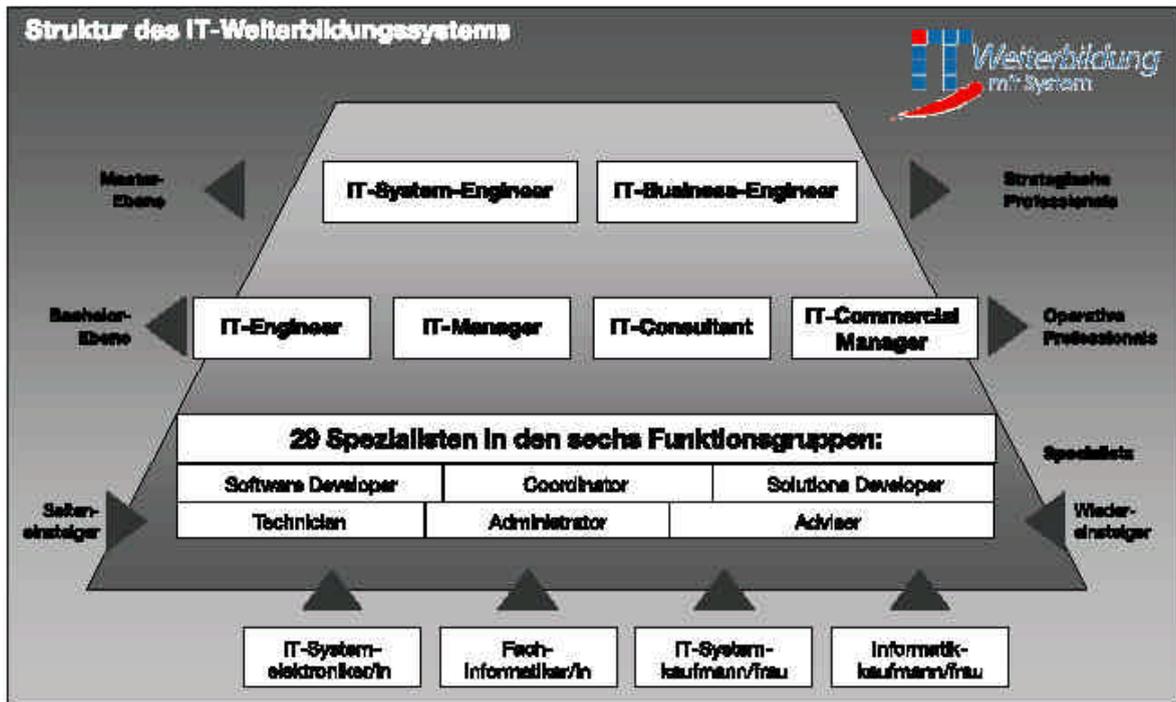
As described above especially the measures of Umschulung presumably will be in the centre of discussion in the coming months connected to the general discussion on the

³ „Opfer der Qualifizierungsoffensive“

role and tasks of the employment service, but there are a number of other recent trends which should be mentioned.

In July 2001 CVET entered the process of public bargaining and is now taken into the wage negotiations and the collective agreements of the metal- and electro- sector of the German Land Baden Württemberg. This is being seen as a step forward by the social partners and will serve as an innovative model also for the other Bundesländer. However, these new regulations are still in the process of taking form on the level of actual institutional solutions and measures.

Figure 1: The new System of CVET-Qualifications in the IT Sector (Bundesminister für Bildung und Wissenschaft, 2002)



The agreements of the metal- and electro- sector in the federal state of Baden-Württemberg now contain individual claims for participation in education and training activities. From research it is ever higher on the agenda of how the described fragmentation can be overcome and there are different suggestions. Bolder (2001) proposes a mixed system of individual and collective rights for qualification and training. Others favour the development of a coherent system of CVET as the fourth pillar of the educational system (Küppers, Leuthold, & Pütz, 2001) whereas Rauner (2001) argues for a comprehensive system of initial and further vocational education with regard to the Berufswelt of work and as a counter example to a modularised system. Another issue that has been discussed over the last 15 years is the introduction of a system of quality control and certification. As a result of the Forum Bildung, an initiative of the Federal Ministry of Education, which aimed to open the political discussion and to serve as platform for a wide range of participants beyond the usual players with regard to educational policy, it is envisaged to establish a foundation for this purpose called Stiftung Bildungstest.

Figure 2: The differentiation into 29 different profiles on the specialist level of the IT-qualification system (Bundesminister für Bildung und Wissenschaft, 2002)

Übersicht über die Spezialistenprofile in den Geschäftsfeldern

Geschäftsfelder Tätigkeits- bereiche	Kompo- nenten und Geräte	Infrastruktur	Anwendungen	Solutions
Systemanalyse		IT System Analyst		
Hard- und Software- entwicklung	Device Developer	Industrial Systems Technician	Security Technician Developer	Network Systems Developer
			IT Systems Developer	Database Developer
			User Interface Developer	Multi- media Developer
		Software Developer		
Koordination/ Dokumentation		IT Project Coordinator IT Product Coordinator Configurations Coordinator Quality Management Coordinator IT Security Coordinator Technical Writer		
Kundenbetreuung		IT Supporter IT Key Accounter IT Trainer		
Administration		Network Adminis- trator	IT Systems Adminis- trator	Database Adminis- trator
			Web Adminis- trator	Business Systems Adminis- trator
Lösungsentwicklung/ -beratung				Business Systems Advisor
				E Marketing Developer
				E Logistic Developer
				Knowl- edge Manage- ment System Developer
IT-Nutzung				Info- rma- tion Broker

Another recent development is the introduction of a so-called 'comprehensive system' of IT Qualifications from initial through continuing vocational education. The new IT-Fortbildungsverordnung, which regulates CVET in the IT Sector was enacted in May 2002, and has been developed in co-operation between the Social Partners, Experts and the government (cf. Figure 1). It is being criticised, however, as a revolutionary threat to the Berufsprinzip by some experts because of its vertical and horizontal differentiation and the new examination procedures connected to it. Critics of the system especially stress that on the specialist level (cf.) it appears as if the 29 specialisations are rather rooted in the tradition of the courses which have been provided on the CVET-market rather than being oriented towards existing in-company processes and working tasks. This, however, is – and that is what is also an outcome of the Bolder, Hendrich (see below) study – an important aspect of making CVET relevant to the intended participants.

1.3 Research and Empirical Results on factors determining participation and non-participation

There are two major empirical studies which should be given particular attention by the Participa Project partners: a study funded by the German Research Foundation and the regular reporting system on CVET participation of the German Ministry of Education. In addition there is a recent pre-study of the University of Trier (Gonon, Weil, & Schleiff, 2003) which is focusing on similar questions as our study, i.e. CVET participation in very (!) small enterprises of up to 10 employees in the Trier/Saarland region. This study is based on a questionnaire filled out by 51 representatives of such companies gathering data on CVET policies and practices. This survey documents the significance of learning activities within work processes such as sharing information, experimenting, reading of documentation etc. Time, financial barriers and lacking personal resources

are mentioned as the major obstacles to involvement in CVET activities. The regional supply structure cannot be identified as deficient according to the data gathered, however, overcoming the other mentioned obstacles would be most likely a necessary precondition to making proper judgements on this question. In the summary of their study Gonon et al. also pinpoint the importance of the blurring boundaries between learning and work and come to contrasting findings compared to the results of Kuwan (2001), indicating a stronger tendency to interpret a range activities as working rather than 'learning'.

1.4 The DFG Study

Axel Bolder and Wolfgang Hendrich (2000) examine reasons for the refusal of people to participate in continuing vocational education and training, an issue which had not been considered adequately up to that point. This is especially true since a growing pressure on individuals can be identified, which originates from the societal need for 'Life Long Learning'. Bolder and Hendrich's publication "Fremde Bildungswelten"⁴ is based on the research project "abstinence from continuing education"⁵ which was funded through the Deutsche Forschungsgemeinschaft. This survey was undertaken in order to identify why adults do not participate in CVET measures even though there is a permanent institutional appeal for them, even though they know about them, even though they could easily make use of them and finally even though they do not even doubt their legitimacy (see Axmacher, 1990, 55).

Bolder and Hendrich point out that there might be a contradiction between societal benefits of continuing vocational education and training and individual, subjective, ones. They try to investigate the subjective reasons for non-participation. The individual action (or in this case non-action) might either be led by an individual cost-benefit analysis (Weber, 1987; Hendrich, 1996) or by a risk-calculation. From a heuristic point of view, it seems to be more profitable to point out and examine the risks of non-participation (Bolder and Hendrich, 2000, 27).

1.4.1 A multi-level approach mixing qualitative and quantitative methods

In order to achieve appropriate data, they decided to use a methodology which combined quantitative and qualitative research, they "*were operating between two stools*" (Bolder and Hendrich, 2000, 14). The sequence of methods and sampling strategy was as follows:

- macro level – Representative study on the federal level to identify participation behaviour, factors of non-participation of the workforce, types of participants and non participants on the basis of discriminant, cluster and factor analysis.
- meso-level – combination of clusters/types of actors explored on the macro-level with two regions representing typical regional contexts selected on the basis secondary statistical analysis, supply structures, secondary interviews etc., selection of interviewees (typical non-participants)
- micro-level – problem-centred Interviews with those selected on the meso-level
- experimental stage – bringing together supply and demand side applying focus group discussions (future workshops, CVET-Market conferences) (Bolder & Hendrich, 2000).

⁴ The English title probably would be "strange worlds of education" even though education does not exactly match the meaning.

⁵ Weiterbildungsabstinenz

The study produced a number of results and insights: the most important of which are represented briefly in the following section.

1.4.2. Results of the study

The survey shows that more than one third of employed people in Germany did not participate in CVET at all. The higher the level of an employee in a company's hierarchy, the more likely is participation. There is only one exception. Self-employed people do participate slightly less than senior employees. Bolder and Hendrich assume that that has to do with the heterogeneous mixture within this group, which covers medical doctors as well as the leaseholders of tiny stores (Bolder and Hendrich, 2000, 59). It also shows a correlation between the level of school diplomas and of initial VET diplomas and the participation rate. The higher the level of the diploma, the higher the participation rate (Bolder and Hendrich, 2000, 62).

The macro-level survey could identify four typical groups of non-participants.

– Industry-typical, successful skilled workers⁶:

This group mainly holds skilled male workers with a deep initial vocational training within the dual system; 90 % of them are employed. The average family income is much higher than in the other three groups. Many of the group members do work in jobs in construction industries or in trades which are have relatively little CVET. Usually they do work in smaller medium sized enterprises. It seems that it is neither expected nor necessary for members of this group to participate in CVET measures.

– Elder industrial workers⁷:

Two thirds of the members of this group are female. Most of them started working without an initial vocational training within the dual system (Berufsausbildung). Similar to the group above, the family income is above average (presumably due to being in dual income households).

– Disinterested evaders⁸:

The members of this group are usually females. Most of them work in public service and trade, the family income is above average (84% in dual income households). The members held a medium position in their company's hierarchy and received rather high level school and initial VET diplomas. The group even has ten percent with academic qualifications. Given these facts, it is very atypical members of this group not to participate. They are just disinterested.

– Inferior positions⁹:

Most of the members of this group are females between 25 and 49 years. This group has a much lower family income than the other groups. Similar to the second group the women do their job without an initial vocational education. Only one third of them are employed full-time.

Even though Bolder and Hendrich sought "non-participants" they did identify two groups within the participants where they could find a "latent refusal" to participate in CVET-measures.

⁶ German: Brachentypisch saturierte Facharbeiter

⁷ German: Ältere Industriearbeiter(innen)

⁸ German: Desinteressierte Ausweicher(innen)

⁹ German: Minderpositionen

- not very young, low motivated but qualified employees in a safe position¹⁰

This group is the strongest group within the participants. None of them is younger than 25 years. Either they are qualified industrial workers or clerks with some responsibilities. Most of them went through an appropriate initial dual vocational education. They are usually living in bigger households, the family income is below average. According to Bolder and Hendrich it seems that paid work and training related to this work is not the main goal of their lives.

- elder employees threatened by unemployment¹¹

This group is similar to the one above. They are a little older – almost everybody in this group is older than 35, 70 % are even older than 50. Most of them started to work after only nine years of school and went through the dual system. Usually they are married.

The study analyses the situation in two German regions. The first is the region of the “Arbeitsamtsbezirk Herford” in North-Rhine Westphalia, the second is the region of the “Arbeitsamtsbezirk Halle” in the South of Saxon-Anhalt. Herford was chosen because it represents an average region in the western part of the country, while Halle represents one of the Eastern German areas where radical change has already started.

Favourable and discriminating conditions for participation in CVET measures depend on individual prerequisites and preferences as well as – from a structural point of view - on the affiliation to enabling professions, branches, companies and of course regions (Bolder & Hendrich, 2000). The knowledge gained by research about CVET participation is deep enough to assume cumulative effects of these conditions. Therefore – not surprisingly – it is possible to identify differences between the two regions. We will not describe these differences in detail in this paper, since the structural conditions in the Bremen area are different to both of them. Körber et al. (1995) describe some of these structural factors for the Bremen region.

It is important though, to identify some of the structural factors mentioned by Bolder and Hendrich (2000) and Bolder et al. (1996).

One of the main factors seems to be the structure of the regional labour market and its (un-)employment rate. The regional labour market also has an important influence on individual aspects referring to CVET-participation. Individuals belong to a certain profession in a certain branch of a certain company which is located in and often influenced by a certain area.

These structural factors are crucial for the particular work situations of individuals. These situations cover several aspects with effects on CVET-participation, such as position in the company hierarchy, the extent of work, the flexibility and disposition towards work, the usability of an initial vocational education or the companies' orientation towards CVET (Bolder, Hendrich, Nowak, Reimer & Spindler, 1994).

A second important regional aspect is the provision of CVET-measures. This factor is not only influenced by the quantity and type of measure but also by structural differences on the suppliers' side, which do interact with the regional labour market. Bolder et al. (1994) summarise the structural influence as follows:

“In principle it does not matter if people are living in Eastern Westphalia or Saxon-Anhalt. However, working there or preferring to work there does matter. That means, the critical factor is and obviously will remain - in Eastern Germany it might even become more important due to political decisions of general principles - the

¹⁰ German: mäßig motivierte, nicht mehr ganz junge Fachqualifizierte in gesicherter Beschäftigung

¹¹ German: bedrohte ältere Arbeitnehmer

position in working life: if there is a stable position, the differences between regions decline. In reality, however, (...) differentiated regional contexts are developed, which are regional expressions of global economical and political decisions and with that individual and collective decisions."

1.5 The "Reporting System CVET" (Berichtssystem Weiterbildung, BSW)

Since 1979 the Federal Ministry of Education commissions research institutes to publish the Reporting system on CVET regularly every three years. The most recent report was published in December 2001 and is based on the data of the 2000 study (Kuwan, 2001). The main outcomes of this study were that in 2000 for the first time since the existence of BSW there was a slight decrease in participation in CVET. The BSW makes the basic distinction between general and vocational CVET and the decrease can especially be seen in measures of general CVET. The differences between the western Länder and the new eastern Länder in terms of supply and participation are consistently moving closer together. Since 1997 the BSW pays more attention to informal activities of CVET, which can be seen as reflecting a general trend in the research on CVET participation. The figures clearly show that participation in this kind of learning is much more widespread than in formal measures. Especially with regard to computer and ICT skills 39% of respondents answer that they have acquired knowledge and skills on their own without participating in more formalised settings. The connection between informal learning at the workplace and accompanying measures of formal CVET is seen as one of the key issues for CVET policies especially with regard to groups with low participation rates. The 2001 edition of this report was to be followed with a more detailed report in 2002, which will also provide information on participation by sectors and regions, which will also provide helpful material for the Participa project.

1.6 Research on CVET and policy environment in the Bremen Region

In the early nineties the topic of life-long-learning raised considerable attention in the Bremen region. The Bremen parliament (in Bremen called the senate as Bremen has the status of a federal state), during this time governed through a coalition of Social Democratic Party (Sozialdemokratische Partei Deutschlands, SPD) and the Green Party (Die Grünen), put in an expert commission, a so called Strukturkommission für Weiterbildung (structural commission for continuing education and training). On the one hand, this commission was to ascertain data about the structure of CVET in the Bremen region and, on the other hand, develop proposals for a new law for CVET. The Strukturkommission commissioned a number of researchers to study the supply of CVET as well as some expert opinions on specific topics, such as supporting structures for CVET on IT, scientific further training etc. (Körber, 1995; Strukturkommission Weiterbildung des Senates der freien Hansestadt Bremen, 1995). Above all, the Strukturkommission was interested in empirical data about the current offer on CVET (state of the art) and in new trends in CVET.

Of the approximately 300 providers of CVET in the Bremen region, 100 were selected based on the criterion that they were able to present a printed programme for a whole year. The study differentiated between three groups of providers: public or publicly approved providers (non-profit institutions through to sport clubs); commercial providers (e.g. language schools, providers of commercial vocational training, vocational retraining measures, providers in the sector of new technologies, especially IT); and the internal training departments of companies (not primarily concerned with the provision of CVET). With respect to in-firm CVET the study above all focused on large (major) enterprises with more than 1,000 employees, which have internal training departments. A broader participation study was proposed, but the idea was refused because of a lack of resources for such a study. For two reasons CVET in SMEs was not incor-

porated into the study. Firstly, most of them do not offer their own, systematic and longer-term CVET for their employees and secondly there are many providers that realise special CVET for SMEs.

The first result of the study was that the CVET supply in Bremen was basically equivalent to the structures that can be seen at federal level. However, it could be seen that through the particular social-democratic tradition in Bremen and the roots of the Bremen law on CVET, political education measures addressed to employees weigh a little stronger than in the rest of Germany (Körber et al., 1995). Secondly, the researchers asserted that the data of different CVET reporting systems are incompatible. And thirdly it was visible, that the statistical data of the public providers of CVET are well edited and easily accessible, whereas the data of the CVET departments of the major companies were not transparent. Finally, the study showed that Bremen, in comparison with other German cities, had less offers in CVET which were targeted on innovative developments in the region.

The researchers' proposals to the Strukturkommission were targeted especially on the structure of funding and the content orientation of CVET. They recommended an opening of funding structures, i.e. the public funding of CVET in future should not follow discrete categories like the number of lessons, instead it should focus on the provision of comprehensive programme budgets. That is, it should be a political decision what is important for the region and what should be voluntary provision. In connection with the crisis in Bremen industry, it would be necessary to adapt CVET to problems of the labour market and to promote innovation, i.e. to promote the window to new technologies. The opinion of some scientists was to allocate scarce resources not to the big providers of CVET, but rather to direct it to where it was most needed.

From this point of view for some participating scientists the effect of the study on the decisions of Strukturkommission was disappointing. The result was a compromise: one half of the financial means was to be expended in a traditional manner, and the other half was to support new and innovative approaches to CVET. A new part (of the law) was the implementation of quality management systems, such as ISO 9000, into CVET. But the results of the study and the proposals of the scientists were not the cause of this innovation. The implementation of quality management corresponded with the general trend of adopting this issue into public and private service sectors.

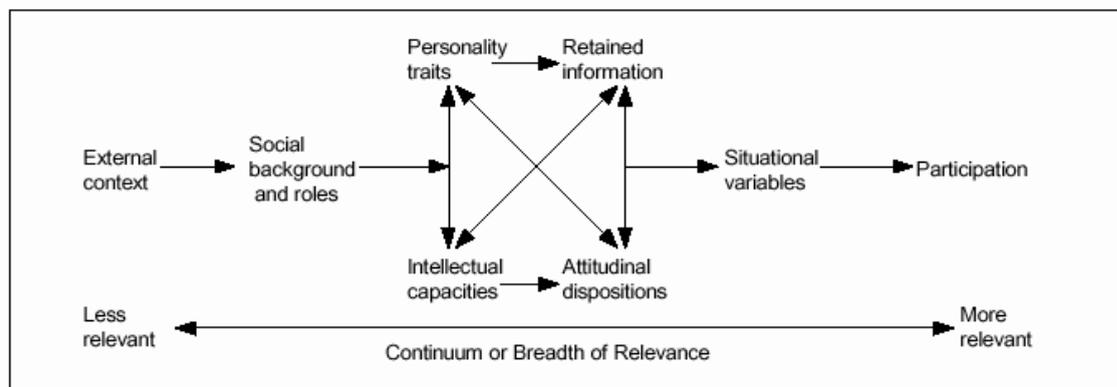
An interviewed expert said the reason for the weak impact of the scientific proposals for the new CVET law was the strong pressure by the representatives of the big CVET providers on the members of Strukturkommission. Because the big CVET providers have had close bonds to political power groups and political parties, they have been able to execute considerable influence on the decisions of Strukturkommission and to prevent a comprehensive reform of CVET law. The comment of the expert was:

“And therefore the instrument (the CVET law) is not able to encourage innovation. Hence, there are some people in the administration, on the level of state secretary, these are the real heads of administration and the strategic thinkers (...) who would like to adjust the law again, because it in fact has stabilised the old structures and practices“ (KG, p.9).

1.7 The ISSTAL Model and perspectives for the German and European Project

For the purpose of finding a common understanding of the research objectives within the PARTICIPA project we would like to establish a relationship of the aforementioned research results to the ISSTAL model, which is being used as a framework for seeking to understand the results of the PARTICIPA project .

Figure 3: The ISSTAL Model



Given the results of the DFG study and the BSW we can say that existing research on CVET Participation has already delivered extensive results with regard to the left hand side of the pictorial representation of the ISSTAL model which can be seen in Figure 3. Those results are not necessarily in line with the implications of the ISSTAL model: e.g. gender or position within the companies are obvious predictors of the participation behaviour of technical workers. In fact, the German studies strongly support the idea that there are huge differences between economic sectors and regions concerning participation behaviour. Hence, it makes much sense for the PARTICIPA project to restrict itself to selected sectors as well as regions. The supply side of CVET as well as regional economic factors play a major role. The selection of the IT sector is very promising, since this is very dynamic as the section on the new system of CVET qualifications has shown. In contrast it seems worthwhile to look at another sector with traditionally high and traditional forms of regulation and qualification, i.e. the aeronautic sector. This sector is seen as a key sector in terms of Bremen regional policies as well as allowing for interesting comparisons with the British results. Remaining on the meso-level within the given limitations of SMEs, the two sectors and in our region, we are convinced that the use of a merely quantitatively standardised approach with a rather global instrument would not have lead to promising results in the German/Bremen environment for the following reasons:

- there is an extensive amount of research on the question of the factors determining the participation and non-participation of technical workers in CVET (BSW and DFG-Study) which is based on representative samples and this should not be duplicated;
- there are good reasons to expect that a study for the specific sectors in the Bremen region would not produce results which were going beyond this existing data.

Therefore we have spent a considerable amount of time and resources for the secondary exploration of data and for the development of an appropriately 'tailored' instrument. The exploration of this secondary data and the expert interviews together with the results of the standardised survey will also serve as a basis for the theoretical sampling of cases to be examined in the case studies.¹² This idea is reinforced by the fact that we know that it is a very time-consuming process to make up a sample for a quantitative study under the given restrictions (region, sector, SMEs).

¹² See also the British and the Italian reports.

Given the existing state of the art and since we specify a number of certain variables beforehand, such as region, sector, size of business we would prefer a research approach which aims for deep rather than broad results. Therefore, the instruments being applied from our point of view should reflect this research strategy – whether they are primarily qualitative or quantitative. The sectoral and regional limitation of the study also allows for the scrutiny of the mediating factors between the demand and the supply of CVET in the region. The demand for and the actual participation of technical workers in CVET measures cannot be seen independent from the actual supply of CVET. Research has shown that participation is not an individual ‘voluntaristic’ decision but a process, where there are different actors involved, especially in the case of technical workers. For us that would mean that – on the level of the case studies and focus groups - we will choose two to three enterprises by contrasting criteria, such as ‘strong and weak CVET cultures’ or in the IT sector development vs. maintenance etc. On the level of individual cases we propose a sample based on the analysis of the existing representative studies and criteria developed within the course of a number of expert interviews. The overall aim of such an approach would be to ground empirically the rather abstract concepts drawn from the general research on CVET participation for the specific sectors and regions. Related to the ISSTAL Model this means focusing on deepening the understanding of the right hand side of the pictorial representation: in particular, shedding light on the meaning of the double headed arrows.

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Nikitas Patiniotis and Olympia Kaminioti

2 Greece

2.1 LITERATURE REVIEW: VOCATIONAL EDUCATION AND TRAINING IN GREECE

2.2 INTRODUCTION

While the subject of education has received considerable attention in the research literature in Greece, the subject of training has not been studied extensively. The main reason for the lack of significant literature on the subject of training is found in the history of education and training development in the country. Both at the institutional and the personal level, education has strong roots in Greece while training - especially formal training - has received less attention until recently, influenced to a great extent by European policy in the labour market and in other areas. Some of the characteristics of the labour market in Greece such as the high level of self-employment, the small size of businesses, many of which are family owned and organised, the rigid way in which the public sector is organised as well as a number of other social characteristics explain the small importance of (formal) training in the labour market.

In the Laboratory of Sociology and Education in the University of Patras, the subject of training is one of the focuses of research. The most recent studies include the examination of effective processes of training, the participation of women in technical training, the effect of informal training in the careers of women and other studies. The study of the factors affecting the participation of technical workers in further training has not been addressed in a previous study but more general issues such as the reasons for participation in training for unemployed and employed, which have been examined, yielded useful information.

In this first report, we present the main characteristics of the Greek VET system as background information useful for understanding the research questions that will become the focus of analysis in the PARTICIPA project. We also present the very few research findings which are relevant for this study. The second part of this report presents the research design, the methodology and the current status of the research for the project.

2.3 THE EDUCATIONAL AND TRAINING SYSTEM IN GREECE¹³

The Context of upper secondary education in Greece

2.3.1 Historical background of the Greek educational system and major reforms

Shortly after the constitution of the first Greek independent state in 1827, the first schools of general education were established. Vocational education schools were founded in the next century. More specifically a law in 1959 constituted the first integrated attempt to establish concrete vocational education institutions; lower technical schools, apprenticeship schools, as well as schools for assistant engineers were created.

¹³ This chapter is based on a report for the project: Effective Processes for the Acquisition of Qualifications for Lifelong Learning (Lifequal), University of Patras, Laboratory for Sociology and Education.

A major reform of the educational system took place in 1964 aiming at providing a chance to enhance the overall development of society. Although the 1964 reform introduced free access to education for all, compulsory 9-year education and changes in the curriculum in terms of language, ancient Greek etc., it came into full force only after 1974, following the 7-year dictatorship and the restoration of democracy. Curricula and books underwent an extensive change and education was adapting to the need for innovation and to realise the potential of Greek society.

In 1977, a law led to the foundation of Technical Vocational Lykeia (TEL), aimed at providing alternatives to students wishing to follow vocational training. Apprenticeship schools were upgraded from lower to middle school institutions. From 1977 onwards, vocational education was officially integrated into the upper secondary Greek educational system. The establishment of vocational education marks the opening of the state to an attempt to achieve the democratisation of society.

In 1983 a law provided for the further upgrading of the Foundations of Higher Technical Education and Training (KATEE) to Technical Education Institutes (TEI), for the first time belonging to tertiary education, but still being inferior to Technical Universities. Another type of Lykeion trying to combine general and vocational education was also founded by law in 1985 and was called Comprehensive [Polykladikon] Lykeion (EPL). Finally, Institutes of Vocational Training (IEK), belonging to the post-secondary educational level, were established in 1992 (Patiniotis et al, 1997). IEK are non-graded post-secondary institutions offering vocational education to Lykeion graduates who have not managed to continue their studies into tertiary education.

So far, the Greek educational system has mainly offered broad but general knowledge, in order to prepare students for higher education; this is mainly due to the fact that Greece has always been a country of limited industrial activity, requiring thus a small number of workers with low level qualifications. The Greek educational system has often been designated as 'one-dimensional', on the grounds of offering few alternatives to students who wished to follow a vocational path different from the mainstream leading to a university degree (Tsoukalas, 1979, 1986). That is, all students had been obliged to attend the same programme of studies, irrespective of their capabilities, vocational ambitions, and prospects (Delmouzos, 1971). According to a broadly sustained view, the one-dimensional character of the Greek educational system, which aims at the preparation of students for university, explains the long standing malfunction of the system (Mylonas, 1982). Students' orientation to general education has its origins, among other reasons, to the fact that most professions in Greece are learned on the job (Patiniotis, Spiliopoulou & Stavroulakis, 1997).

2.3.2 Objectives of upper secondary education – access to tertiary education and the labour market

The most important problem of upper secondary education in Greece is the gap between general and vocational education. Considering the social, cultural and economic aspects of the problem, the majority of young graduates pursue a university degree. They do not even think of satisfying their aspirations through vocational or technical education unless they fail their university entrance exams and come from low social strata. As a result, Greece is experiencing an 'overdose' of university graduates occupying a high ratio of state posts and occupations in the labour market. The rate of unemployment has steadily rising in the last decade and the phenomenon of 'hetero-employment' is frequent, that is, a person is often involved in professional practice in an area different from the vocational education and training that he or she has received. A large number of university graduates are also engaged in a profession other than the one for which they have been educated.

Vocational education is thought to be for the 'failures' of the school system. The wish of most families of those who graduate from Lykeion is entrance to university. It is also necessary to take into account the fact that lower classes are not prejudiced against higher education. On the contrary, many young people from humble origins enter higher education and become successful professionals; in the post war period over 40% of students in university or higher technological education have been from rural or labour origins (Celorrio, Miquel & Patiniotis, 1997).

There are cultural and structural factors that explain this picture. Cultural factors are related to the wish of most parents to help their offspring progress in learning, the latter being closely associated with a 'respectable profession', as well as with a higher social status. In this respect, they are willing to pay considerable amounts of money to private tuition foundations in order to prepare their children for the exams for entrance in higher education institutes or to send them to universities in a foreign country. There are also structural factors explaining the preference of students for general education instead of vocational education, which are related to the function of the labour market in Greece. Admittedly, the skills generally demanded by the labour market tend to be rather low, hence not rendering necessary a prolonged vocational training; instead, a brief on the job training often suffices. Accordingly, the salaries received by vocational education graduates tend to be rather low, and social status of technical professions still remains rather inferior. Although inflows of students to vocational education have tended to increase, they still lag considerably behind the numbers going into general education (Laboratory of Sociology and Education, 1998).

In the professional field in Greece, we are experiencing a situation in which a person:

- practises a profession because s/he has been trained for it,
- has been trained for a certain profession but practises a different one,
- or has not received any kind of VET at all.

There is a kind of detachment between the educational system and the labour market (Pesmazoglou, 1985 & Patiniotis, 1996). The post-war state in its endeavour to modernise both economy and society was influenced directly and indirectly from abroad (Worldbank, big western states etc.) and has formulated the present VET structure based on foreign structures and not taking into account particularities in the the Greek social and economic background (Patiniotis & Stavroulakis, 1997). For example, enterprises are interested in recruiting cheap employees, thus reducing production costs. The majority of Greek small size enterprises are not willing to pay more money for employees with higher qualifications. On the other hand, the economy does not require a large number of highly qualified employees (Patiniotis, 1998). Although this may sound strange, a typical Greek enterprise tries to become competitive by paying low wages and offering on the job training to its employees. This explains why, until recently, in spite of innovations in Lykeion, VET reforms have generally been overlooked. The government is not under any kind of pressure regarding the transition from the general or academic education track to the vocational one.

2.3.3 Reforms in upper secondary education

A new model of upper secondary education which is called Comprehensive* Lykeion (Enieon Lykeion) has been recently designed, aspiring to abolish and replace all previ-

* Although the term **Comprehensive School (Polykladiko)** existed as a form of Lykeion, we are still using this term in order to translate the new model of **Enieon Lykeion** which is a more specialized form of the old one. Enieon Lykeion specializes in theoretical issues – the main difference lies in the fact that Enieon Lykeion seeks the best way to prepare students for tertiary education institutions. On the contrary, the former Polykladikon Lykeion's philosophy was the link of theoretical and applied fields, pursuing at the

ous forms of Lykeia, with the exception of Ecclesiastical and Musical Lykeia. It was intended that by the year 2000 all the current forms of Lykeia would be fully developed in form and organisation offering three specialisations, namely: theoretical (humanities, social sciences and languages), traditional sciences (mathematics and natural sciences) and technological sciences. The reform also included a change in the way teachers are appointed and evaluated aiming at selecting people for teaching positions that are better qualified instead of selecting people based on a chronological list of graduates from appropriate departments as in previous situation.

In principle, this innovation does not concern the graduates' easier access to the labour market but their access to universities. Comprehensive Lykeion is a form of school which, according to the Ministry of Education, provides support to its plans for a more sufficient education of prospective students. Since the innovation in the linkage between general / academic and vocational education has just started coming into force, we are not in a position to describe the resulting changes in the relations either between initial vocational education and enterprises or between initial vocational education and universities. Therefore, we will restrict ourselves to the presentation of the recent reforms pinpointing, at the same time, the problems and drawbacks encountered during this implementation (see Figure 1).

same time, students access to both tertiary education and the labour market (thereby exercising a dual function).

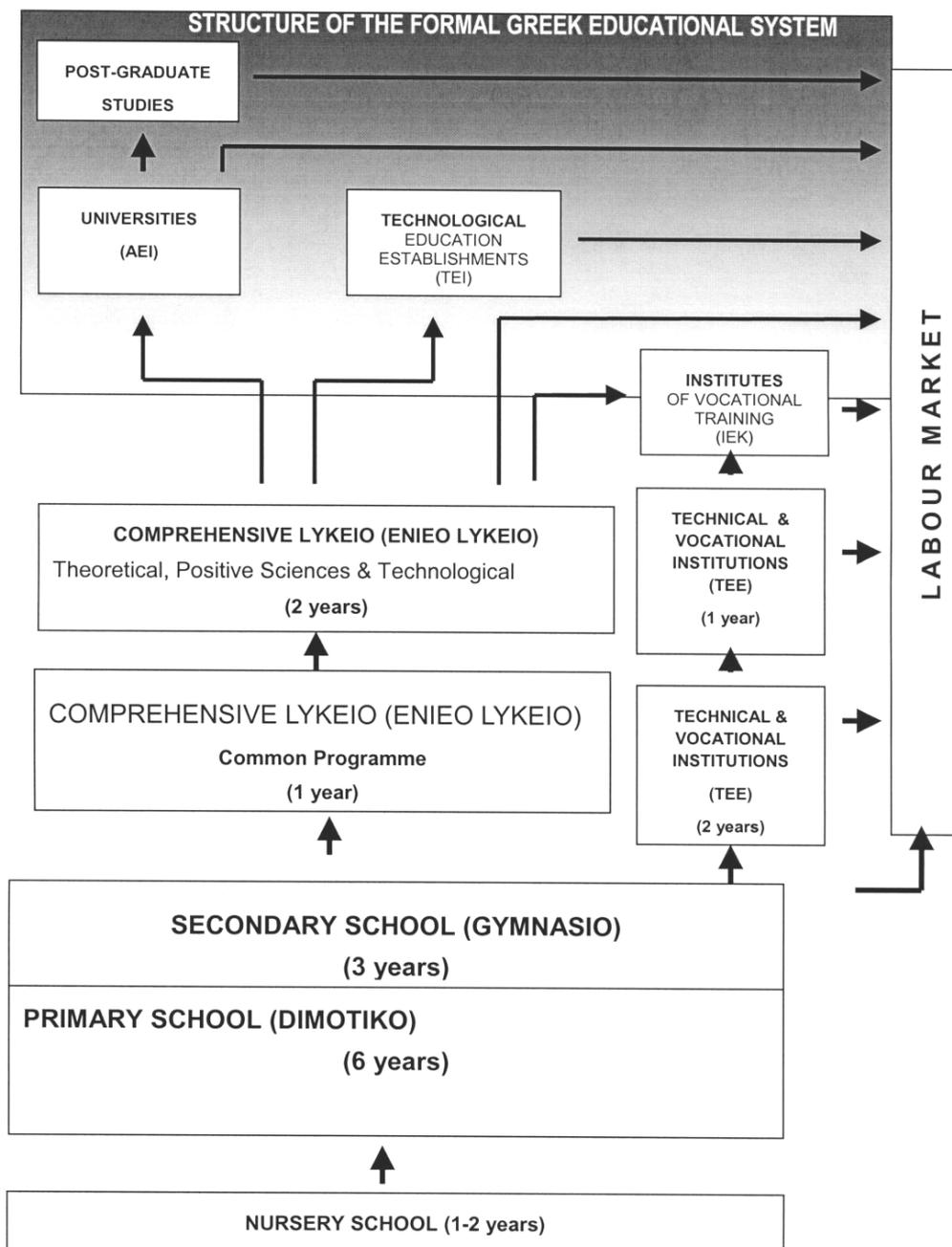


Figure 1: Structure of the Formal Greek Educational System

Initial Source: D.Thomas –Directorate of Education of Achaia Prefecture

2.3.3 Towards a comprehensive lykeion (enieon lykeion)

The new form of Comprehensive Lykeion was introduced in 1997-98 starting the innovation gradually from the first year of studies. The goals of Comprehensive Lykeion according to the law are:

- To provide high level general education and help students develop their skills in order to take initiatives, to strengthen their personality and make use of critical thought.
- To supply students with adequate knowledge in order to be qualified for further studies in the next grade of education.
- To offer students the skills needed to make them efficient in gaining access to the labour market, after adequate specialisation or training.

The general characteristics of Comprehensive Lykeion are:

- To enhance general education's grounding.
- To introduce new subjects such as astronomy, computer studies, theatrical play, modern European literature, natural resources disposal, history of sciences, history of art etc.
- To upgrade the role of the teachers as well as to promote collaboration and communication between students and teachers.
- To institute a systematic and substantial briefing between teachers and students.
- To establish Centres for Consultation and Professional Orientation.
- To offer parents' associations more privileges and responsibilities.
- To introduce new teaching methodologies and new assessment procedures.
- To offer students the option to improve their performance by lessening the number of examinations and teaching hours they experience.

2.3.4 The structure of comprehensive lykeion

In the first year of studies of Comprehensive Lykeion there is a joint curriculum for all students. The second year of studies introduces three orientations: theoretical, traditional sciences and technological sciences. In this year subjects of general education, common to all students, are taught in a ratio of 60-65% of the school curriculum and the optional subjects take up the rest. In the third year each orientation includes courses for the teaching of optional subjects. General education subjects in the third year of studies cover 50-55% of the curriculum and optional subjects take up the rest.

Comprehensive Lykeion's graduates are granted a national certificate (ethnikon apolitirion) which enables them either to enrol in a tertiary education institution or to receive vocational training by attending institutes of post-secondary education (IEK). Student assessment forms an integral part of the educational process aiming mainly at the evaluation of the quality of knowledge offered; it also endeavours to combine various forms and techniques in order to achieve a reliable, objective and unprejudiced system of assessment, thus eliminating the need for extra examinations. At the same time, innovative projects are encouraged in order to help students develop their creative and writing skills and to provide feedback to the teaching process.

Another innovation of Comprehensive Lykeion concerns the programme of extra teaching addressed to students with learning difficulties. This programme started in February 1998; each school identifies the learning difficulties of its own students and organises extra teaching hours having as a target to heal these difficulties or to teach again part of the curriculum that students have not assimilated. Teachers come from the school's teaching staff and they receive compensation for the extra teaching hours. These programmes can also be run in collaboration with nearby schools.

2.3.5 Technical and vocational education

The new law concerning Secondary Level Technical and Vocational Education (enacted in June 1998) constitutes the statutory basis for a complete system of technical and vocational education within the framework of secondary education. After the completion of the compulsory 9-year education, students can choose either the comprehensive form of general education (Comprehensive Lykeion) which leads to academic studies, or the reformed and flexible form of technical and vocational education (Technical and Vocational Institutes) that qualifies them for professional integration.

This new institutional context, called Technical and Vocational Institutes (TEE), is intended lead to the qualitative improvement of vocational education so that knowledge, critical ability and various skills can be developed to secure vocational integration in flexible conditions. It is an open system, providing a horizontal link to the Comprehensive Lykeion, offering continuous opportunities for professional and educational development, running parallel to the configuration of conditions suitable to establish vocational and cultural paths (see Figure 3).

Emphasis is paid to the acquisition of vocational skills in the workplace. In order to achieve this, relevant contracts should be signed with enterprises of both the public and private sector, thus setting the pre-conditions for the local labour market. Extra weight is being given to the reform of professional specialisations, in order to respond to the demands of the labour market. Taking into account these specialisations, the programmes of vocational training are organised accordingly and the new curricula and books for Technical and Vocational Institutions (TEE) are published.

Vocational Education is provided by TEE which fit into the upper secondary level of education. Secondary school (Gymnasium) graduates may enrol in a TEE. Studies last up to 3 years, expanded to 4 years for the evening TEE, and are segmented into two cycles – the first one lasts 2 years though it is possible to prolong these for those specialisations involving apprenticeship. The second cycle (upper cycle) lasts 1 year. Upon completion of the first cycle, students can either continue their studies into the second cycle of TEE or proceed directly to the labour market, provided they have been qualified with a certificate as well as with a licence for practising their profession. If they wish, they can make a transition to the second year of studies of the Comprehensive Lykeion. The graduates of the second cycle of TEE can also continue their studies in an IEK with a relevant specialisation or can opt for entry into the labour market; they can even continue their studies to TEI provided they have 18 months professional experience and have passed successfully the exams run by TEI.

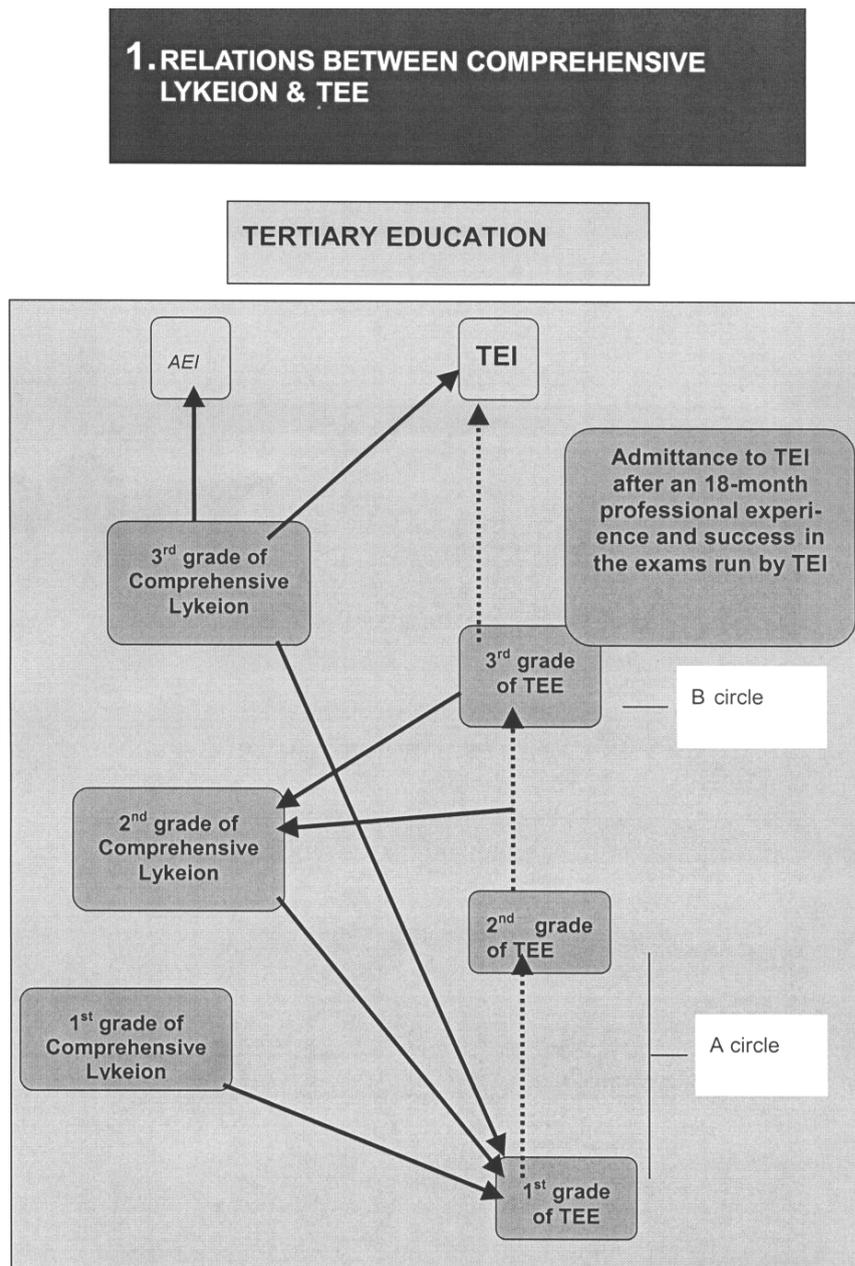


Figure 2: Relations between Comprehensive Lykeion and TEE.

Source: Ministry of Education

A basic target of the horizontal link between TEE and Comprehensive Lykeion is that students can change over from one form to another whenever they like to follow a path other than that of tertiary education; they are offered the opportunity to enrol, if they wish, in the first year of studies of TEE, retaining however the common subjects they have already been examined in the Comprehensive Lykeion. The curriculum of TEE includes subjects of general education and basic vocational education in the respective vocational fields and specialisations, plus a number of laboratories and practical exercises. General education covers 40% and 35% of the curriculum in the first and the second years of studies in the first cycle, and 25% in the second cycle.

2.3.6 Access to tertiary education

Until now, students wishing to enrol in a tertiary education institution have to take pan-hellenic entrance exams due to the limited number of places available. From the school year 2000-01 onwards, Comprehensive Lykeion graduates can enrol to all tertiary education institutions without further entrance exams. In practice, it means that all entrance exams are abolished and Comprehensive Lykeion graduates can enrol freely to:

Universities (AEI) and Higher Technical Establishments (TEI).

Five scientific fields of studies in tertiary level education are organised. Comprehensive Lykeion's graduates can choose one from the following 5 fields:

- Humanities, law and Social sciences
- Natural sciences
- Health sciences
- Technological sciences
- Economics and management
- Optional Programmes of Studies (P.S.E.) of Universities and TEIs [a new institution]
- The Greek Open University (E.A.P.) [a new institution].

It is estimated that by the year 2000, 85,000 places will be available in tertiary education, a number which covers the number of Comprehensive Lykeion's graduates who would like to continue their studies in AEIs and TEIs. The foundation of 70 new departments has been announced, thus increasing the number of places available by 13,000 (Source: Ministry of Education). Two additional institutions, those comprising Optional Programmes and the Open University, are also introduced. 32 Optional Programmes of Studies are organised, introducing continuing education in tertiary level education with a focus on new subjects and inter-departmental co-operation. The Greek Open University operates through distance learning. Comprehensive Lykeion and University graduates can enrol in any of these programmes.

2.3.7 National strategy with respect to educational reforms

The following discussion refers to the intentions of the Ministry of Education regarding the recent innovations in the upper secondary education system. The writers are not in a position to evaluate or even express their judgement regarding this system, since the implementations are still in their initial phase.

2.3.8 Main focus of the reform

The focus of the reform is on curricular changes, and the foundation of the Technical and Vocational Institutions which lead to professional qualifications and the labour market.

2.3.9 Aims of the reform

The main purpose is to create a modern and effective public education system meeting the needs of the 21st century with the involvement of the students, parents and especially teachers in the educational process. The abolition of university entrance exams as well as the closer connection of the educational system with the labour market are the main problems which the reform is trying to solve.

2.3.10 Concept of parity of esteem

Enhancing the vocational education offered by TEE is tried through the introduction of general education subjects in these schools. However, TEE graduates can gain access to universities only under certain conditions, that is, if they have professional experience and they succeed in exams run by TEIs. As for universities, TEE graduates cannot be accepted at all. Therefore, academic and vocational paths are not equivalent; the only attractiveness of vocational education is that graduates are licensed to practise certain professions.

2.3.11 Problems of equality

Comprehensive Lykeions and TEEs serve different roles. TEE graduates can proceed to the labour market, whereas Comprehensive Lykeion graduates progress to tertiary level institutions. First cycle TEE graduates may enrol in the second year of studies of Comprehensive Lykeion and get a certificate qualifying them for a place in a university.

2.3.12 Curricular toolboxes / knowledge

New teaching methods, books and subjects are introduced. In the technological sciences field of Comprehensive Lykeion new laboratories are organised. TEE students are encouraged to get on the job practice.

2.3.13 Teaching and learning arrangements/pedagogy

Teachers' seminars are organised throughout the school year. Teaching methodology becomes more creative. The students are no longer passive recipients, accumulating knowledge and presenting it in exams in a mechanical way. They collaborate closely with teachers and fellow students. Students enrich their knowledge, sharpen their thought, judge, evaluate, analyse, compose and create either alone or collectively. The lesson becomes more pleasant, activates the teacher and inspires the student.

2.3.14 Assessment

Pure memorising is not evaluated. Parrot learning is useless. The student has to use critical judgement. What is assessed has to do with projects, presence in the classroom and participation in the class throughout the school year. Student's grading is announced on the school's bulletin board every four months and at the end of the year exams.

2.3.15 Social inclusion

The reform promotes the achievement of all types of learners of the Comprehensive Lykeion (academic achievement) and the TEE (vocational achievement).

2.3.16 Networking and Organisational and Institutional Aspects

The reform introduces new relationships between schools and businesses, since the TEE students' certification includes training on-the-job.

2.3.17 Additional comments and concluding remarks

There are a number of questions and problems that cannot be overlooked. The most serious of these problems are related to the implementation of the new curricula. There

are not any appropriate books yet and the teaching staff are complaining that they have not been offered adequate training to cope with these changes and to be able to transfer them into the classroom. In addition, there is a lot of reaction concerning the use and effectiveness of these reforms.

Secondly, the new curriculum of Comprehensive Lykeion gives more weight to mathematics and less to social knowledge in relation to the former General Lykeion. The change is taking place in a period in which the significance of social skills for the labour market is more evident than ever. In TEE, social sciences as well as history are excluded from the curriculum. Recently, there has been a strong reaction against the abolition of sociology and history. It is highly surprising if we consider that the establishment of TEE has to do with the direct access to the labour market by means of acquisition of appropriate knowledge and skills.

A third major issue has to do with the teachers' evaluation process. After so many years of complete absence of evaluation, teachers are reluctant to be subjected to that process again because they are still under the influence of unpleasant memories of the past, in particular, the 7-year dictatorship and the years before. During that period, school inspectors were the only ones who evaluated teachers' work and there were many cases of prejudiced evaluation due to political beliefs or personal arguments. The same concerns apply to the procedure of appointment. Teachers and prospective teachers are reluctant to sit another exam in order to be evaluated. The reaction has become so strong that during the first exams serious demonstrations and riots took place. Furthermore, teacher unions are claiming that other ways of evaluation could be introduced; also, they insist on the preservation of the waiting list of the Ministry of Education for teachers' appointment.

Nothing is yet known about VET educators. It is common sense that the reform will call for new kinds of educators. This uncertainty is readily understandable if we consider the Greek political reality, that is, the policy of the Minister of Education is either under a considerable change or refuted by the next Minister of Education – even when this Minister belongs to the same political party. In Greece we still experience a situation in which educational policy is based more on the ideas or plans of a certain Minister, the relevant organisations and social groups who influence him than the overall policy of the governing party.

From the above, it becomes obvious that there is a high degree of uncertainty and reaction with regard to the new reforms. Since we are in the first year of the implementation of these reforms, everything is still under question and in the experimental stage. Time will reveal how many of these changes are feasible or how they can be improved.

2.4 RESEARCH FINDINGS ON TRAINING PARTICIPATION

In this section we summarise the research findings of four studies that even though they do not focus on the factors affecting the participation of technical employees in training, their findings provide useful contextual information for the Participa project.

The first study is titled: "Demand for Continuing Education and Motives for Participation of Interested Parties in Greece; the Unemployment of High School Graduates and Continuing Vocational Education". S. Papiroannou and a team of researchers in the Department of Sociology in the University of Kriti did the study and the report was published in 2000. This study examines the supply and demand of continuing VET programmes in Greece trying to evaluate these VET practices from the point of view of their effectiveness in enabling participants find employment. One of the questions of this study is which are the reasons and the aims of young people participating in continuing CVET. The target group of the study were high school graduates aged 18-29. This group was selected because of their high unemployment rate. The study examined the reasons for participation and non-participation in training of unemployed peo-

ple. According to this study the main reason the unemployed participate in training is because they believe the additional qualification they will receive after finishing their training will help them find a job. At the same time, most of them did not consider that the training would improve their skills. One of the general conclusions of the study is that there is a negative view in many groups of the Greek society about the effectiveness of training which affects training participation and evaluation in Greece.

The second relevant study was funded by the Leonardo programme and examined the training processes in small and medium-sized companies in twelve European countries. The title of the final report is: "Training in Europe: Training Processes in SMEs: Practices, Problems and Requirements" and was published in 1997¹⁴. The study in Greece was done by the University of Piraeus. It focused on the examination of the reasons of the limited access of small and medium sized enterprises to continuing vocational training activities in the twelve countries. The study examined the training practices in small and medium-sized enterprises trying to identify the problems and the difficulties these companies face in their training processes. The research was based on a survey of 75 manufacturing firms in each country and a qualitative analysis of the training practices in these firms. The analysis shows that in all countries there is a positive relationship between the size of the company and training. Moreover, training in larger firms takes more formal forms than in smaller firms. In Greece which has one of the lowest participation rates in training, employees showed considerable satisfaction with the training they had. However, the interest of employees in training was higher in the larger firms. The study on the Greek case concluded that the lack of interest of the employees is an obstacle to increasing the training participation of employees in small and medium-sized enterprises.

The third study that produced relevant results for the examination of the factors affecting the participation in training was done by the Laboratory of Sociology and Education in the University of Patras. This study which was also funded by the Leonardo programme examined, among other things, the reasons why employed and unemployed people participated in training practices. The final report was published in 1999 under the title: "Effective Processes for the Acquisition of Qualifications for Lifelong Learning." According to this study, the unemployed participate in training mostly because they have no better alternative. Their opinion about the value of the gained knowledge varies depending on the characteristics of the unemployed and the quality of the programmes they attend. The attitudes of employed people towards participation in continuing training varies depending on their personal characteristics and the characteristics of the businesses in which they work. Moreover, employers in bigger companies appreciate formal training to a greater extent compared to employers / owners of smaller businesses. The latter even when they consider training useful face operational problems that create obstacles in the participation of their employees in further training.

The fourth study was funded by the Adapt programme and in Greece was organised by Fanco in 1997. The title of the study is: "Factors influencing textile employees' participation in continuing training in Greece and Denmark". The focus of the study was the examination of the factors that influence training participation of women with low educational and other skills who were working in the textile industry. The textile industry was at the time undergoing a major restructuring effort and certain re-training needs were identified. The problem that was encountered was that the educational background of the employees was low which created extra problems in the design of any re-training programmes. The study found that the factors affecting the training participation of these employees, either positively or negatively, could be summarised into two

¹⁴ Descy Pascaline and Manfred Tessaring (eds). 2001. Training in Europe. Second Report on Vocational Training Research in Europe: Background Report. Cedefop Reference Series.

categories. The first included the values and attitudes of prospective trainees towards education, training and learning in general. Even for people of low educational background these values differ and certain people value learning more than others. Those who believe in the value of learning (for personal growth and for other reasons) are more motivated to participate in training. The second major category of factors included the different types and degrees of encouragement employees receive from their employers for participating in training. These included financial motivation factors but also simple letters from the employer showing the appreciation for the training programme and the importance it has for the employee and the company. These findings were similar for Greece and Denmark. One difference between the two countries was that the expectation of evaluation of the performance of the employee in the training programme was a factor that discouraged training participation in Greece while this was not so in Denmark. This last finding was attributed to cultural reasons.

In conclusion, the studies in the Greek literature on the issue of training participation provide some very broad insights into the attitudes of training participants with respect to training and the reasons affecting training participation. However, they do not provide specific information about the factors influencing certain groups of the workforce such as technical personnel on their decision whether or not to participate in further training.

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3 Italy

3.1 Public Policies for CVET

In Italy, the system for the promotion and financing of continuing training is governed by a number of laws and regulations:

- measures set out in Law 845/1978;
- actions financed under the provisions of commas 3 and 7, Article 9, Law 236/1993;
- actions carried out by the Joint Inter-Profession Funds for continuing training (set up for the first time in 2000);
- support for leave to undertake continuing training in accordance with the provisions of Law 53/2000;
- bonus systems provided for in Law 383/2001, Article 4.

These legislative devices link together in several ways. Moreover, there are many similarities of strategy and content between the European Social Fund (ESF) and Italian laws, especially the Law 236/93. At present, policies concerning support for workers and companies are currently being transferred from Law 236/93 to become part of the actions undertaken by the Inter-Profession Funds for continuing training; these will constitute the vehicle for agreements between the social partners (employers' associations and trade unions) to promote continuing training policies within each sector of the economy by means of an ad hoc fund. Thus, specific training plans will be drawn up for individual companies, workers and groups of companies within a single sector.

Brief descriptions of some of the legislative devices listed above can be provided as follows.

3.1.1 Law 845 and the ESF

Continuing training actions envisaged under Law 845/78 – the framework law on training in Italy – regulate the ESF and are subject to specific programming by the State and regional Governments. All the parameters relating to the beneficiaries and costs of actions are decided, case by case, in specific calls for proposals issued by the regional or provincial authorities (the latter in cases where jurisdiction over training policies has been delegated by the regional government).

The ESF programming for the period 2000-2006 is under way at present. Specifically, CVET policies are drawn up almost exclusively under Strand D, Objective 3. For this strand over 250 million euro per year have been allocated, nearly 50% of which goes to Objective 1 areas.

Strand D is related to the development of:

- a competent, qualified and adaptable labour force;
- innovation and adaptability of work organisation;
- business spirit;
- conditions favourable to the creation of jobs;
- qualified personnel and greater potential in research, science and technology.

3.1.2 National Law 236/1993

Law 236/93 is the first law, in Italy, aimed at the organic and independent promotion of continuing training, i.e. training exclusively for vocational re-training of workers¹⁵. The financial resources were allocated in 1996, when the Ministry of Labour and Social Policies drew up the tools for programming, implementing, managing and evaluating continuing training actions based on streamlined procedures and a flexible system of supervision and control. Until 2001, the law allocated over € 690 million, allowing access to training for more than 700,000 workers.

As it is structured, the law envisages a complex set of actions designed to follow a varied scheme according to which the many protagonists of CVET are 'forced' to interact in order to maximise the effects and amount of the resources allocated. The Law actually facilitates access to financing for training projects that rely on collaboration between the following stakeholders:

- social partners (employers' associations and trade unions);
- companies, training institutes and bodies conducting policies of local support (such as trade associations, chambers of commerce and others);
- companies and individual workers.

It is in this spirit that training projects or plans involving system actions (i.e. that envisage CVET actions in which the social partners, districts and companies participate) link to actual training of training agency operators, training at work (by drawing up company plans with incentives based on agreements with the social partners) and finally individual training (which also receives incentives when the agreement is between individual worker and company).

3.1.3 Law 53/200

Law 53/2000 on parental and training leave has special significance: workers are entitled to train throughout their working life by taking advantage of training leave, a period of time when it is possible to undertake training without losing a job. The law favours situations in which there is an agreement with the company as part of a reorganisation plan that includes reductions in working hours. The law in question furthers some of the provisions of Law 236/93 regarding the promotion of individual training paths. This means that workers can choose an individual training path that is not related to their job.

Despite these problems the law initially allocated (for the year 2000-2001) some 15.5 million Euro which is intended to support plans submitted by workers. Approximately 14% of these financial resources have been allocated to the Lazio regional government.

¹⁵ The law is financed from national resources obtained from a percentage of what workers pay into INPS, the national agency in charge of the financial management of funds allocated for welfare.

3.1.4 Tax incentives for continuing training

The last aspect of the body of law regulating CVET in Italy is Article 4 of Law 383/2001, known as Tremonti Bis, the effects/benefits of which are still under study at present. The article in question is part of a programme to revive the economy launched by the Government as part of the Budget for 2001. As far as training in general is concerned (including CVET), the law makes provision for a form of direct contribution by extending corporate tax benefits to outlays for training and refresher courses. Since training expenditures are thus tax deductible up to a specific amount, they are viewed in the same light as any other investment. As a consequence, this should provide some stimulus to undertake training actions.

3.2. Social Perception of CVET

At Lisbon in March 2000, the Council of Europe forcefully re-evoked the theme of life-long and continuing training, defining access to training throughout life as one of the founding elements of an individual's right to active citizenship and of their right to employability. Italy, too, has been focusing more attention on the theme of training by building and reinforcing a more structured body of regulations that should increase considerably the opportunities for access to training, especially by workers. These efforts are impeded, however, by the reality of a situation in which effective use of the opportunities for training is poor, as is the very perception of training, and especially continuing training, as one of the strategic levers available to individuals to counter the obsolescence of their vocational skills.

Several studies point to a strongly disoriented perception of the very term continuing training. Isfol has surveyed a sample of 5,000 representative workers from the universe of private sector employees (some ten million people) as part of its Continuing Training Project, the results of which reveal that the term has lost its real significance and is now generally associated with an abstract idea of recursive training, repetitive as regards both themes and times. The survey also confirms that there is difficulty distinguishing continuing training from life-long training or from vocational training. The data therefore 'denounce' the absence of a culture of training and the extreme urgency of communicating the implicit scope of the term continuing training without using ambiguous terminology. The survey also confirms that people are aware of a need for a process of continuing training throughout their working life (about 80% of the workers interviewed are of this opinion).

The contradiction between a widespread but still latent need for training and a reality in which training performs a residual function (involving spot actions and a lack of programming) emerges in all its clarity. One of the reasons why the perception of training is so unclear is connected with the complex roles of actors charged with the promotion of continuing training in Italy. These people work within a complex system, where outlines and connections are unclear, causing disorientation among workers: roles and functions belonging to the Ministry of Labour and Social Policies, to regional governments, to provincial authorities with delegated powers, to local agencies, to ISFOL, to the social partners (employers' associations and trade unions), to the EU, to companies and to training agencies and organisations all lack proper identification from the viewpoint of workers. Irrespective of their professional roles within a company, some confuse training activities reserved for leisure hours promoted by their district of residence with training promoted by the European Social Fund.

Another source of confusion is the identification of profiles addressed by public measures to stimulate training. Here it is apparent that payroll workers believe training financed by the public sector is mainly in the nature of support for young people, unemployed workers and other weak categories, and that they relegate training for work-

ers (continuing training in the true sense) to a completely secondary role, as demonstrated by Table 1.

Table 1 – Users of training financed by the public sector (multiple reply)

TARGETS	Percentage
Young people	47
Unemployed workers	31
Workers	19
Workers on redundancy pay	6
Weak categories	5
Disabled workers	3
Women	4
Others	7
Don't know	18

Source: study by Isfol -Abacus (2001).

It is true that for many years public policies favoured groups regarded as disadvantaged and experiencing difficulty entering the world of work. Indeed, it emerged from our study that a policy centred on equipping workers with the skills and know-how needed to safeguard their work status was first introduced in 1993, with Law 236/93.

3.2.1 Evaluating the main lines of CVET public policies

An assessment of Italy's public policies for CVET should also take account of measures promoted under Law 236/93. The resources allocated by Law 236/93 are used each year to train approximately 165,000 workers and represent a per capita investment ranging from a minimum of 516 Euro to a maximum of 770 Euro. The following table contains estimates of the impact of Law 236/93 during its first five years of application from 1996 to 2000.

Table 2 - Workers and companies involved in training at work projects financed from Law 236/893

Year	Resources (in m euro)	No. project in training (estimate)	No. employees involved (estimate)	No. companies involved (estimate)
1996	32.02	1,400	59,500	2,200
1997	65.69	2,800	122,000	4,600
1998	102.26	4,400	190,000	7,000
1999	85.21	3,700	158,500	5,900
2000	77.46	4,000	296,000	7,200
TOTAL	362.55	16,300	826,000	26,900

Source: web www.effecontinua.it

The most evident element is the proportionate growth over the years in the amount of resources allocated, number of projects, workers and companies involved. The increase can largely be ascribed to an improvement in the spending capacity of regional

governments and greater awareness of financing initiatives among the target subjects, as well as to the amount of resources available.

Another aspect of CVET promotion policies worth examining concerns the ESF. In this case the number of workers involved is approximately 260,000 per year and the estimated average cost / investment per workers is around 1,564 Euro¹⁶.

Further surveys promoted either by ISFOL or other national research institutes show that very probably barely 1.9% – or some 400,000 workers – of all Italian workers (more than 21 million) take advantage every year of training courses promoted by the public system. This is not a large percentage but it is significant if one considers that these workers represent just under a quarter of all workers who receive training in our country. The figures quoted above show how difficult it is for public policies to optimise the introduction of a culture of continuing training. Even in 2001, in Italy the number of companies that provided training and the number of workers who trained was well below the average for the EU countries.

A mere analysis of quantitative data does not bring to light all those experiences that represent paradigms owing to their nature and ability to infect other realities. In this respect many monitoring studies have tried to pinpoint all the so-called good practices of CVET, starting from the experiment with training vouchers to finance individual continuing training, possibly one way of giving more encouragement to worker training.

The experiment marks the start of a new strategy of financing and incentives for CVET based on the following elements:

- recognising the independence of workers as creators of their own individual training paths;
- a preliminary form of co-financing between public system and worker, designed to create a stronger sense of responsibility when choosing a training action. This model is not too unlike that adopted in the Anglo-Saxon countries – on the model of the English Individual Learning Account system.

The voucher experiment also originated within the system created by Law 236/93. The legislator defines individual training very precisely in the following terms: “individual training is taken to mean measures designed to audit and develop the skills possessed by payroll workers as part of projects drawn up by the individual workers themselves, if necessary with the technical assistance of vocational guidance and training centres belonging to the regional or autonomous provincial governments”.

This definition makes explicit reference to the role that the public system should perform throughout the guidance phase. Workers themselves are very often unable to self-diagnose their training gaps and in the majority of cases are even incapable of weighing the role that activating an autonomous training process might have compared with what is usually planned by the company. The law on individual training tends, in practice, to reward the initiatives of workers who agree on their training actions with the company in which they work, although this method of presenting training projects has been widely disregarded. Not infrequently, the reason for using a voucher, which can range in value from a minimum of approximately 505 Euro to a maximum of some 1265 Euro per worker, stems from a desire to acquire different professional prospects with respect to an existing situation, something that in fact triggers a dialectic process between individual worker and company. The experiment with individual vouchers spread rapidly even in ESF calls for projects. This has not only opened the way for a new method of public promotion of CVET but has also created a potential market for CVET

¹⁶ This estimate is taken from the final evaluation of the SPD Objective 4, 1994-1999, and is unlikely to differ much from the contents of the new programming 2000-2006 for Objectives 1 and 3, strand D.

consisting of individual workers as well as companies. In the future, therefore, the type of training supply available on the market will be more and more in the nature of tailor-made paths for individual workers.

Table 3 illustrates the participation of workers in the individual initiative.

Table 3 – Applications received and approved (figures on 31.10.2001)

Regional governments	Applications received	Vouchers awarded
A.P. Bolzano	61	54
Emilia-Romagna	9819	5256
Tuscany	6466	2993
Piedmont	7500	6460
Umbria	310	205
Basilicata	249	249
Lazio	442	442
Liguria	538	475
Total regional governments involved	25385	16134

Source: Isfol Continuing Training Project.

The experiment involved almost exclusively workers who were highly motivated to seek professional growth and determined to take advantage of the voucher opportunity as a moment of learning that would enable them to improve their professional career – be it inside or outside their existing company – and all had a very homogenous profile:

- a high level of schooling (university degree or upper secondary school qualification);
- middle to high expertise or role in the company (managers, junior managers, technical experts);
- employed in the area of new business services;
- age range 25 to 34 years.

It is easy to identify the limitation of individual training at present, i.e. its inability to intercept the professional profiles that are more likely than others to suffer from obsolescence. Basically, individual training offers a re-edition of the typical forms of more traditional CVET, in which it is almost always the ‘strongest’ workers who are involved. This is why a number of regional governments, such as Tuscany and Emilia-Romagna, have made a few adjustments to the method of communicating the initiative so as to encompass more vulnerable workers by ‘offering’ a voucher for what are termed atypical workers or who are not on a payroll contract (and especially those with a contract of co-ordinated collaboration).

As far as the actual experiment of individual training is concerned, the region of Lazio has been one of the most active, at least during the initial phase. To give a first example, the region has created a system of ‘skills audit’ that can evaluate the appropriateness of a worker’s individual training path. The instrument used for this purpose, the ‘Evaluation of vocational skills and guidance to training’, allows workers to identify their own training path in accordance with their personal growth requirements. Another interesting aspect is the creation of a regional catalogue of training supply which work-

ers can use to choose the most appropriate courses and other training initiatives, although the catalogue does not constrict them in their choice of training actions: in fact, about 10% of those workers who made use of the voucher chose courses or seminars without consulting the regional catalogue.

Workers in the Lazio region who have used the voucher conform with the profile outlined above. All of the 442 workers involved are clearly characterised as to age (Table 4), with a predominance of younger workers who are more aware of the sources of communication, as well as more inclined to invest in themselves.

Table 4 - Participants by age

Age groups of workers	%
Up to 30 years of age	48.2
30-34 years	21.7
35-39 years	16.7
40-44 years	8.6
45-49 years	3.4
Over 50 years	1.4
Total	100

Source: Isfol Continuing Training Project

Moreover, it is possible to note a large predominance of men (62.4%) over women.

Analysing the themes to which the workers accorded preference, it emerges that a strong concentration developed around two areas: computer studies (52%) and languages (32.1%) (Table 5). These are two areas of transversal skills that are regarded as basic for every type or level of occupation. Other courses that were popular among the workers succeeded in achieving a total of 25%.

Table 5 – Courses chosen by workers

Courses chosen by workers	Percentage
Computer studies	52.0
Languages	32.1
Use of industrial machinery	5.0
Art/restoring/architecture	2.9
Tax/payment services	2.7
Behavioural studies/organisational analysis	1.8
Marketing/sales	1.6
Quality/customer satisfaction	1.4
Transversal skills	0.2
Safety and environment	0.2
Total	100

Source: *Isfol Continuing Training Project*

It may be of interest to analyse the choice of themes addressed by the training actions according to the age and gender of workers (Table 6). In this case there appears to be a preference among men for the area of technical and organisational skills while women seem to be oriented towards the acquisition of skills linked to jobs traditionally connected with office administration and public relations: languages, marketing/sales and tax/payment services.

Table 6 - Courses chosen by workers by gender

Courses chosen by workers	Percentage men	Percentage women	Percentage of total
Computer studies	50.7	54.2	52.0
Languages	30.1	35.5	32.1
Use of industrial machinery	8.0	-	5.0
Art/restoring/architecture	4.7	-	2.9
Tax/payment services	1.4	4.8	2.7
Behavioural studies/ organisational analysis	1.8	1.8	1.8
Marketing/sales	0.7	3.0	1.6
Quality/customer satisfaction	2.2	-	1.4
Transversal skills	-	0.6	0.2
Safety and environment	0.4	-	0.2
Total	100	100	100

Source: Isfol Continuing Training Project.

It would appear that these choices are influenced by a rigid view of expertise based on gender orientation, above and beyond the requirements and characteristics of the labour market.

3.3 Participation of Italian Companies and Workers in CVET

3.3.1 Problems of Continuing Training: from Basic Training to Life-long Learning

To follow the way continuing training has evolved in Italy and understand one of the reasons for Italy's backwardness in the field of training it may be interesting to analyse non-compulsory school training paths (in upper secondary schooling). The low percentage of the population over 30 years of age holding a school-leaving diploma (Table 7) is an important indicator of the fact that Italy's training system does not involve citizens in basic training and does not set in motion processes that can promote the ability to learn to train.

Table 7 – Percentages of the population with upper secondary school leaving diploma by age groups

Age	UE	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK
30-34	22	32	29	25	23	26	22	28	10	22	26	11	14	26	30	26
35-39	21	29	29	26	20	22	19	25	11	21	26	10	13	25	30	25
40-44	21	25	30	27	18	18	19	22	12	20	26	11	12	22	32	25
45-49	19	25	28	26	15	15	17	17	10	21	23	8	11	19	28	24
50-54	17	22	25	24	11	12	15	15	8	20	21	7	9	19	24	20
55-59	14	17	22	20	9	9	11	13	5	15	17	6	8	16	22	17

Source: Istat figures reworked by the European Commission (1997).

Often, early dropping out from the school system leads to disaffection with any form of structured training, which is immediately associated with the unhappy experience of school. In Italy, percentages are smaller not only than those of traditionally 'strong' areas (such as Scandinavia and Great Britain) but also of other Mediterranean countries like Spain or Greece. It is not surprising that Italy's population of 24 to 64 years olds participate less in training and educational activities because the lack of basic and theoretical training evidently affects the capacity and the will of people to engage in periodical training.

Eurostat's calculations based on the Labour Force Survey (Table 8) can be used to analyse the trend of people taking part in training activities (whether life-long or continuous). In Italy, the percentage of participation in training (5.2% in 2000) appears to reflect exactly what is happening in the other main European countries like France, Germany and Spain, although despite the progressively rising trend it remains well below the average for the EU (8.4%) and especially that of the Scandinavian countries.

Table 8 – Participation in educational and training activities in the 24-64 age group by country and by year (percentages, years 1992-2000 – labour force data)

	1992	1993	1994	1995	1996	1997	1998	1999	2000
Belgium	2.3	2.7	2.7	2.8	2.9	3.0	4.4	6.9	6.8
Denmark	16.2	15.6	15.1	16.8	18.0	18.9	19.8	19.8	20.8
Germany	-	-	-	-	5.7	5.4	-	5.5	5.2
Greece	1.2	1.1	1.0	0.9	0.0	0.9	1.0	1.2	1.1
Spain	3.3	3.3	3.7	4.1	4.2	4.2	4.1	4.9	4.9
France	2.9	3.0	2.9	2.9	2.7	2.9	2.7	2.6	2.8
Ireland	3.4	3.5	3.9	4.3	4.8	4.2	-	-	-
Italy	2.9	3.4	3.7	4.0	4.4	4.9	4.8	5.5	5.2
Luxem- burg	2.9	2.6	3.3	2.9	2.9	2.8	-	5.3	4.8
Portugal	3.6	3.2	3.5	3.3	3.4	3.5	3.0	3.2	3.3
Finland	-	-	-	-	16.3	15.8	16.1	17.6	19.6
Sweden	-	-	-	-	26.5	25.0	25.0	25.8	21.6
England	12.5	10.8	11.5	-	-	-	-	-	-
EU 15								8.2	8.4

Source : Eurostat – labour force survey⁴

Assessing participation in CVET alone in Italy and the other European nations is a more complex matter. The difficulty arises not so much from the definition of CVET that is adopted, for it is one shared by all the observers and institutes belonging to Sistan (the National Statistics System)⁵, as from how the interviewees perceive their own training. Another problem is the partiality of surveys designed to exclude in general certain sectors of the economy.

In our case, some of the most important surveys made of vocational training and continuing training or that contain sections dedicated to training between 2000 and 2001 will be analysed.

Istat Survey of the Labour Force: this is run quarterly on a representative sample of the population; in particular, the section dedicated to CVET is done in April of each year. The sampling unit of the survey is the individual citizen aged over 14 years;

⁴ Eurostat adopts the following definition: "Education includes initial education, further education, continuing or further training, training at work, apprenticeship, on-the-job training, seminars, distance learning, evening classes, self-learning, etc., as well as other courses followed out of general interest: courses in languages, data processing, management, art/culture, health/medicine. Before 1998, education was confined to education and vocational training which was relevant for the respondent's current or possible future job.

⁵ Sistan is a public body representing all the research entities and institutes producing data that are publicly considered official and therefore used for economic and financial as well as social policy programming.

Isfol– Observatory on continuing training – survey of “Attitudes and behaviour of workers in relation to training” – the survey is run among payroll workers in private companies;

Unioncamere survey – Excelsior 2001: this is run among companies, excluding those in the agricultural sector and the public administration;

Istat-Eurostat Continuing Vocational Training Survey (CVTS) 2001: this is run among companies with over 9 employees – data for 1999 are used.

The analysis will be based on the surveys of workers.

3.3.2 A Brief View of Use of Continuing Training for Workers

Istat’s quarterly survey of the labour force run among a sample of 200,605 people over 14 years of age who are representative of the more than 48 million individuals included in that age group aims to collect information among family units – 60,000 family units are involved – and from single individuals. The interviews are conducted face to face.

The survey contains a short section – of 8 questions – relating to training in general, including training paths connected with compulsory and optional education. The survey takes a snapshot of the situation in the month prior to completion of the questionnaire.

In the case of continuing training we can extrapolate three types that are mentioned: courses recognised by regional government, training at work and training outside work. According to the survey for April 2001 the three items together grouped 2.25% of people engaged in training during the survey month, or approximately 1,100,000 individuals over 14 years of age.

As Table 9 shows, more than half of the interviewees were engaged in training at work, followed some distance behind by training outside work (qualification courses generally paid by the individual) and courses recognised by regional government.

Table 9 – Percentage of people engaged in continuing training

	Percentage of sample
Courses recognised by regional government	0.45
Other course (excluding training at work)	0.6
Training at work	1.2

Source: Istat quarterly labour force survey (1 quarter 2001)

In the same survey it is possible to deduce the motives why people already employed were engaged in training. There appeared particularly to be concern about changes introduced with new technologies: “adaptation to new technologies” is in fact by far the most frequent motive, followed by a need for personal growth.

Table 10 – Reason for training attended during month prior to survey week

	Percentage
Adapt to new technologies	60.1
Career advancement	7.9
Change of job	3.5
Other reason	9.8
General education, personal growth	18.7
TOTAL	100

Source: Istat, quarterly survey of the labour force (1 quarter 2001)

There exists an element of demographic differentiation in participation in training from the viewpoint of the age of the interviewees. In fact, we compared the trend by age of training at work to participation in training activities in general. As the table below shows, the percentage of training at work is especially large in the middle and more mature age groups, among which training is strictly related to work trends and plays an evidently central role (Table 11).

Table 11 – Training activities by age group (all percentages)

	15-24 years	25-29 years	30-39 years	40-49 years	Over 50 years
Training in general	9.2	7.5	6.2	6.1	4
Training at work	1.4	1.9	2.3	2.5	1.6
Training at work in proportion to training in general	15.1	25.3	37.1	40.9	40.0

Source: Istat, quarterly survey of the labour force (1 quarter 2001)

The survey of Isfol, which is part of the Observatory on Continuing training run by Abacus of the Taylor Nelson Sofres group, looks closely at the reality of training among workers from a quality point of view. As we mentioned, this survey was run on a sample of 5000 workers in private companies and focused on the themes of continuing training. It is the first and most organic sample survey run on workers in recent years (2001).

The first important result concerns the percentage of workers who have been engaged in training in the past two years (2000-2001). They represent some 32%, or 1,500,000 trained workers every year among the universe of private payroll workers. This is a large percentage, although still below the figure for other European countries and despite the fact that some of its characteristics mean it continues to be a privilege of a 'few'.

Voluntary or compulsory participation in training in fact always appears to affect the same type of workers, as demonstrated in Table 12.

Table 12 – Participation in training in the past two years

	Percentage
No training course	68
One training course	11
Two training courses	10
Three training courses	7
More than four training courses	4
Total	100

Source: study by Isfol -Abacus (2001).

Training is available for workers who have already been engaged in training but continues to be unavailable for those who have been excluded and therefore complain about the lack of training opportunities in the company where they work.

Those who do take part in training courses are engaged in at least five different types:

- Classroom courses (70% of cases);
- Self-learning programmes (45%);
- Seminars (33%);
- Structured tutoring (32%);
- Distance learning (12%).

The proportion of these types of training does not change if such factors as company size or geographical location are taken into consideration, whereas it is affected more by the worker's position in the company and the theme of the training action.

The typical profile of the worker engaged in training is generally that of someone with a 'strong' personality capable of negotiating with the company about the methods and frequency of access to training. Such workers:

- are men (35%) more often than women (27%);
- have considerable responsibility inside the company (for example, 67% of junior managers, more than 40% of senior managers and technical specialists compared with 10% of generic blue-collar workers and 13% of messengers/doormen);
- are people with a high level of schooling (55% graduates compared with barely 15% with just compulsory schooling);
- are resident in large urban areas (with over 500,000 inhabitants);
- are workers aged between 30 and 40 (36%) rather than over 50 year olds (25%).

In these sort of conditions, training is likely to become another element of discrimination inside companies and in the labour market itself if it is used by a minority as a means of strengthening their career progress and professional pathway. This type of intra-company discrimination is compounded by at least two other forms associated with the economic system as a whole: company size and economic sector, which mean different possibilities of access to training for workers. The study has in fact shown (Table 13) that worker participation in training increases with the size of the company.

Table 13 - Participation in training according to company size

	Percentage of workers trained
Less than 6 employees	17
6-9 employees	19
10-49 employees	23
50-249 employees	32
Over 249 employees	54

Source: study by Isfol - Abacus (2001)

Similarly, belonging to a branch of the services sector ensures a greater likelihood of being involved in training courses (especially in the banking sector which is the branch of services with the highest figures for access to training) – Table 14.

Table 14 – Participation in training according to macro economic sector

	Percentage of workers trained
Industry	25
Building	23
Trade	26
Services	45

Source: study by Isfol -Abacus (2001)

Consequently, the possibility of using training depends on contingent factors that make the economic system extremely non homogeneous and able only to guarantee in part the right to training of workers.

At present, access to training can be interpreted as a continuous line, at the two ends of which are workers with managerial responsibilities in the banking sector, in companies with more than 249 employees, who have almost certain access to training and generic workers in building companies with fewer than 6 employees who in practice never have the chance to train.

3.3.3 A Brief View of Use of Continuing Training at Work

Surveys of training run directly among companies have a longer tradition. There are a number of institutions that have given space to such surveys for almost a decade. Here we take a specific look at two surveys, one run by Istat-Eurostat, the CVTS, and the other by Unioncamere (Excelsior).

The CVTS is now at its second edition, the first having been run on data for 1993. In the last survey, based on data for 1999, the reference sample consists of around 190,000 companies with 10 or more employees. Various data collection methods are used (face to face CAPI for large companies and self-compiled questionnaire letter for others) to interview 7260 companies. One of the first interesting results is the percentage of companies that undertook training in 1999, 24.1% - in 1993 the figure was 15% - with large differences associated with company size and sector of production that confirm the data analysed in the case of workers.

The CVTS enables us to make an international comparison: the Italian productive system's delay in promoting training is evident, with the phenomenon affecting companies of all sizes and every type of sector, as illustrated in Tables 15 and 16.

Table 15 – Percentage of companies offering training in various European countries by size group. 1999

	Total	10-49 employees	50-249 employees	Over 249 employees
Denmark	96	95	98	100
Holland	88	85	96	98
Ireland	79	75	98	100
Germany	75	71	86	98
Belgium	70	66	93	100
Spain	36	31	58	86
Italy	24	21	49	81
Portugal	22	17	46	78

Source: Istat/Eurostat: Continuing Vocational Training Survey - 1999

Table 16 – Percentage of companies offering training in various European countries by sector. 1999

	Total	Industry	Trade	Other business services
Denmark	96	95	100	98
Holland	88	90	87	90
Ireland	79	90	77	90
Germany	75	73	83	87
Belgium	70	68	72	86
Spain	36	38	41	41
Italy	24	24	24	28
Portugal	22	19	24	43

Source: Istat/Eurostat: Continuing Vocational Training Survey - 1999

Above average (24.1%) are companies that can very generally be grouped within the branch of ICT, such as “manufacturers of electrical, electronic and communications machinery and equipment” (41.7%) companies dealing in “software and related activities” (35.6%).

The study also reveals the trend of access to training among companies: in the three-year period 1997-1999 only 30% of Italian companies promoted training activities in at least one of the three years. So here again, as shown by the interviews with workers, training tends to be recursive in the case of companies that programme it, whereas it continues to be a non-priority activity, not to say marginal, for the majority of companies. Table 17 is also interesting since it reconstructs the behaviour of companies that offered training in the three years considered.

Table 17 – Provision of training in the three years 1997-1999

Training provided	Percentage
Every year (1997-1999)	47.3
Only in 1997	4.8
Only in 1998	5.5
Only in 1999	18.5
1998-1999	13.2
1997-1998	8.7
1997-1999	2.0
Total	100

Source: Istat/Eurostat: Continuing Vocational Training Survey - 1999

It is apparent that the rate of increase of the proportion of companies that are active in the training field is poor. It ranges from approximately 18.5% of companies providing training in 1997 to 22.5% in 1998 and up to 24.1% at the last recording (1999). The companies choose traditional methods of training: classroom courses (79.9%), seminars (66%), training at work (62%). Moreover, the thematic areas covered by the courses are fragmented: acquisition of 'personal abilities' (16%), 'company management' (13.5%), 'computer studies' (12.5%), 'production techniques' (11.4%), 'environment and safety' (9.8%); these are followed by marketing, languages and book-keeping. There is a constant lack of formal and systematic guidelines for carrying out training and it is often contingent needs that decide the type of activities that will be performed. An analysis of the context and organisational conditions of the companies reveals the following situation: absence of any training programme, of a specific budget, of an internal training centre or an agreement with the trade union. These elements indicate that even companies that offer training give little thought to the subject (Table 18).

Table 18 – Programming and organisation of training –1999

	Percentage of total sample
No agreement with trade union	93.9
No training centre	91.3
No budget for training	90.0
No training programme	81.4

Source: Istat/Eurostat: Continuing Vocational Training Survey - 1999

One last aspect of interest that has emerged from the survey concerns the reasons why companies do not offer training (Table 19).

Table 19 – Programming and organisation of training -1999

	Percentage of companies not training
Insufficient skills	73.1
Not enough time	21.7
New recruitments	18.1
Difficulty of evaluation	17.0
Cost too high	15.2
Basic training	11.3
Other	6.6
Training in previous years	5.3

Source: Istat/Eurostat: Continuing Vocational Training Survey - 1999

The 'conviction' that they do not have enough skills (73.1%) somehow suggests two conflicting scenarios: either companies do not have the capacity to analyse the skills and know-how they possess or there are other informal channels and strategies for 'acquiring' skills that cannot be classified as training in the narrow sense.

Other reasons for not offering training refer to more clear-cut events such as 'new recruitments' (particularly in the case of small and medium-sized enterprises), difficulty assessing gaps in training and the excessive cost of training.

Some confirmation of the findings so far is also provided by the Excelsior survey run by the Research Centre of the Union of Chambers of Commerce (Unioncamere). This survey covers a broad-based sample (over 100,000 companies out of a total of 1,021,005 and run using the telephone interview method - CATI). It focuses on the methods of formal continuing training (for instance, courses and seminars) and excludes forms such as on-the-job training, self-learning or quality circles that are included, instead, in the CVTS survey. This is the main reason⁶ why the percentage of companies offering training is less than half in 2000 (11.9%) compared with the CVTS survey (24%). The choice of such a rigid criterion was due to the need to measure the proportion of public funds allocated to formal training activities compared with the aggregate amount invested by training companies. It emerged that public funds (ESF and Law 236/93) account for 13% of the whole cost of training, which in 2000 was approximately 1.2 billion Euro, a proportion that rises significantly to 18.5% in the case of companies with 50 to 249 employees that enjoy the benefits of training policies expressly targeting SMEs (small and medium sized enterprises).

Apart from this there are analogies in the trends recorded by the two surveys:

- more training is provided by large companies (87.8% of those with more than 249 employees compared with barely 10.3% of companies with 1-9 employees);
- training tends to be provided in the sectors of business services and electronics;

⁶ Another element that differentiates between the two is the fact that the survey extends to companies with 1-9 employees, which are instead excluded from the CVTS survey. This factor also explains some of the differences encountered. It is well known that training is less frequent in companies with fewer employees and this fact reduces considerably the aggregate total of companies offering training. The same differences apply to the Isfol-Abacus survey of workers which uses similar sampling criteria to the CVTS survey.

- most of the companies are located in the north-west, as well as in central Italy.

Because of the structure of its sample the survey provides a number of indications regarding payroll workers trained in companies; they total just over 1 million in number (10.6% of all employees) and the average annual cost per trainee is 150 Euro. Again there are substantial imbalances due to company size, and in the following table (Table 20) it is clear that more than 60% of trainees work in companies with at least 250 employees.

Table 20 – Number of employees trained by company size

	Total number trained
1-9 employees	114,545
10-49 employees	129,100
50-249 employees	163,345
250 and over	657,629
Total	1,064,619

Source: Unioncamere – Ministry of Labour, Excelsior Information System, 2001

If we look at the percentage of employees trained by their companies, in some sectors or production and geographical areas additional differences become apparent. The first element of interest is that at the extremes of the behaviour categories we find companies with 1-9 employees that manufacture wood, paper and similar products where barely 2.1% of employees trained in 2000 and the sector of 'business services' with 32.9% of employees being trained (Table 21).

Table 21 – Percentage of employees trained in the various sectors by company size

	1-9	10-49	50-249	250 and over	Total
Mining and quarrying, metals, chemicals and energy	3.4	5.3	10.4	30.2	13.9
Food manufacturing	2.5	5.6	8.1	21.6	9.1
Textile, clothing and footwear	2.5	1.9	3.9	12.4	4.0
Wood, paper and similar industries	2.1	4.0	6.1	14.5	5.3
Engineering, electronics and transportation industries	4.4	5.2	7.0	25.4	13.8
Building	3.4	6.3	7.3	23.1	5.7
Trade	2.8	4.5	7.7	19.4	6.3
Tourism and transport	2.8	4.0	6.9	13.3	7.4
Business services	4.4	7.6	16.3	32.9	19.1
Personal services	6.8	8.3	9.2	18.6	10.7
Total	3.4	5.1	8.9	24.6	10.6

Source: Unioncamere – Ministry of Labour, Excelsior Information System, 2001

As for the geographical areas, there are no evident differences among the 4 macro areas, with the percentage ranging from a minimum of 9.7% in Southern regions and islands to 11.2% in North-Western regions (Table 22). The greatest difference is between the single regions. The region with the highest proportion of trained employees (14.3%) is Lazio, a result that can be ascribed in part to the strong concentration of 'business services' (such as financial services, software and consulting companies in general).

Table 22 – Percentage of employees trained in the various sectors by geographical area

	North-west	North-east	Centre	South-islands	Total
Mining and quarrying, metals, chemicals and energy	12.9	13.3	17.1	13.9	13.9
Food manufacturing	12.3	8.7	8.4	6.1	9.1
Textile, clothing and footwear	4.4	4.1	3.3	4.0	4.0
Wood, paper and similar industries	4.8	6.0	4.1	6.7	5.3
Engineering, electronics and transportation industries	13.5	11.8	14.0	19.0	13.8
Building	6.2	6.8	5.4	4.8	5.7
Trade	7.3	6.5	5.4	5.1	6.3
Tourism and transport	8.1	8.9	5.6	6.8	7.4
Business services	18.7	20.5	19.7	17.6	19.1
Personal services	10.4	12.4	10.5	9.7	10.7
Total	11.2	10.7	10.4	9.7	10.6

Source: *Unioncamere – Ministry of Labour, Excelsior Information System, 2001*

3.3.4 Use of Continuing Training by Payroll Workers in Lazio

The last aspect worth examining is the trend of training, particularly from the viewpoint of the Isfol-Abacus survey which provides information on workers in private companies in Lazio. One of the first elements of interest is the percentage of workers that have received training in the past two years (36.1%), which is higher than the national figure (32%). What is the reason for this? The region's economic structure includes a large proportion of workers in sectors that pay greater attention to training, such as banking and the advanced services sector. This is evident if we look at the percentage of workers who received training by sector in the two years 2000-2001 (Table 23).

Table 23 – Percentage of private payroll workers receiving training by sector in the past two years (Lazio)

	Percentage
Manufacturing industry	28.0
Utilities	39.0
Building	17.7
Trade	27.5
Hotels/restaurants	36.1
Transport and communications	44.3
Banking	69.0
Software	43.8
Other services	15.9
Total	36.1

Source: *Isfol CVET project, Isfol-Abacus survey of payroll workers (2001)*.

It should be noted that the level of training of workers in the banking sector is particularly high (69%), followed some way behind by transport and telecommunications (44.3%) and software (43.8%). The overall trend reflects that of the country as a whole but there is greater focus on training within the sectors that were covered by the survey.

Similarly to the results of the national analysis, in Lazio, too, company size plays a crucial role in determining access to training opportunities for workers (Table 24). Compared with the national figures, there is more training in medium sized enterprises and especially those with 50-249 workers, a class in which Lazio has 42.7% of workers trained, compared with 32% for the country as a whole.

Table 24 – Percentage of workers receiving training by company size in the past two years (Lazio)

	Percentage
1-9 employees	16.7
10-49 employees	30.2
50-249 employees	42.7
Over 249 employees	54.2
Total	36.1

Source: *Isfol CVET project, Isfol-Abacus survey of payroll workers (2001)*.

The differences and contradictions present in existing training processes are firmly rooted in the region. This is even more apparent if we note that access to training is certainly much easier for workers with a higher role in the company (Table 25) and for those with a higher qualification (Table 26). More specifically, as far as role in the company is concerned, access to training is much more radically divided between profiles with responsibility and executive profiles – except for clerks – than happens at national level. For example, 86.5% of junior managers were involved in training in Lazio, compared with 67% at the national level.

Table 25 – Percentage of workers receiving training by role in the company in the past two years (Lazio)

	Percentage
Middle manager	86.5
Administrative clerk	47.5
Technical expert	36.2
Clerk	40.2
Unskilled worker	10.4
Skilled worker	17.5
Doorman/messenger	7.1
Other role	46.0
Total	36.1

Source: *isfol CVET project, Isfol-Abacus survey of payroll workers (2001)*.

The profile of workers receiving training in relation to educational qualification is similar to the figure for the country as a whole. The only difference of note concerns the percentage of those receiving training who have a professional specialisation (more than 30% in Lazio against 25% in Italy).

Table 26 – Percentage of workers receiving training by qualification in the past two years (Lazio)

	Percentage
University degree	53.3
Upper secondary school diploma	37.3
Professional specialisation	30.7
Compulsory schooling	11.1
Total	36.1

Source: *Isfol CVET project, Isfol-Abacus survey of payroll workers (2001)*.

The last point worth examining is the age of participants in training courses (Table 27). While the trend of the various age groups reflects perfectly the situation at national level, with more access to training for the age group of 31-40 year-olds, there is a difference in participation levels. For all age groups there is a 5% greater level of participation in Lazio compared with the country as a whole.

Table 27 – Percentage of workers receiving training by age group in the past two years (Lazio)

	Percentage
Up to 30 years	35.6
31-40 years	39.7
41-50 years	35.1
Over 50 years	30.6
Total	36.1

Source: Isfol CVET project, Isfol-Abacus survey of payroll workers (2001).

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4 Portugal

4.1 Lifelong Adult Education: the Portuguese reality – a synthesis

In Portugal, in the last decade of the 20th century, despite the issuing of Lei-Quadro de Educação de Adultos (Bill for Adult Education) (DL 74/91), the recommendations of the Committee for the Reform of the Education System (1988), the considerations of the National Board of Education when the Bill was being prepared, and the development of the White Book of Adult Education and the Emergency Plan issued by the General Committee for Education Extension (GCEE) (1988), Adult Education and Training still bears the mark of a traditional school-like vision. The development of adult education and training is centred on the two areas previously defined in 1986 by the Lei de Bases do Sistema Educativo (Bill concerning the Education System): recurrent education (evening classes) and extra-school education.

The above-mentioned school-like character of adult education and training crystallises a reductionist trend of the scope of adult education, which still predominates nowadays, and which has hindered a broader outlining of the concept which underlies the 'knowledge society. This concept would involve the guarantee of an educational offer generally available to the Portuguese adult population, throughout life, allowing the definition of more diverse individual paths to reach higher cognitive levels than the current ones, and certifying, whenever possible, the new levels thus reached with qualifications equivalent to those of the formal educational system. However, in the last few years, there have been major outbreaks in the creation of specific educational paths for adults, with modes of organisation different from those of regular schooling, and there has been the consolidation of the widening of recurrent education. There persist, nevertheless, some problems, including the difficulty in involving the frailer groups, in keeping the high percentage of young students recently excluded from the regular system; the relatively rapid exhaustion of the capacity of expansion of the formation cycles which have been established for some years now; and high levels of drop out; coupled with low success rates and high formation costs. Other problems relate to difficulties for trainees to continue their studies and in seeing their occupational formation reflected in their working conditions; and difficulties building adequate formation spaces and a formation logic clearly oriented towards the adult population, markedly different from those of formal schooling. Additionally, there is the lack of an adequate system of units that reflect the characteristics of the target-group, with preference for young students excluded from the regular system. To move to such a system would involve questioning the attendance register, the assessment system and the overall development of a system so much based on self-formation.

These are some of the problems revealed by the few case studies that have dealt with the assessment of these ongoing formation processes. Additionally, they show that the quality of the education effort highly depends on the dynamics of the institutional contexts in which recurrent education is developed and on the specific dynamics of the pedagogic teams involved. If these are important variables, it is logical that they should become the focus of political measures to transform the actual conditions of recurrent education. In the meantime, it seems necessary to present initiatives aimed at devising a more flexible curriculum, thus guaranteeing the indispensable adaptation of the curricula to the different types of trainees and to the diverse contexts in which the formation is to take place. Above all, it seems useful to make such formation less school-like. The creation of effective systems of certification of the competence already

acquired by adults is only one of the dimensions of this fundamental divergence from the traditional school-like system.

4.2 Continuing Professional Training: the Portuguese case study

The Portuguese case study is quite interesting regarding training. In the beginning of the assertion of our national identity, particularly as a means of survival and assertion of our individuality, the development of human resources was considered essential. Portugal was one of the first countries to have an 'Apprenticeship' Bill approved by the court in Coimbra in 1384. Such a fact allowed our country to be equalled to the major political powers of the period, a period of prosperity in which training was deemed a fundamental need in the context of national development (Florêncio, 1982). Furthermore, the high regard of professional training in the past has in the present time become a determining factor for the competitiveness of countries. According to Luís Barrosa (1991), human resources are granted a fundamental role in their being defined as a "challenge of competitiveness". One can then contextualise the intensification of professional training. The legal enactment of new possibilities of learning and professional training - Bill of Learning (1980) and the Bill of Schools for Professional Training (1989) - is a means of ensuring the insertion and social and professional integration of individuals.

Nowadays, continuing professional training is defined as that which, throughout active life, encompasses subsequent interventions following initial training. It is intended to improve the skills of the active population, widening knowledge, enlarging the breadth of selected activities or promoting specialisation at a specific level, thereby facilitating individuals to adapt to organisational and technical transformations. When initial training is characterised by a strong sector differentiation, continuing training presents an even greater differentiation from sector to sector and even from institution to institution. This is more clearly understood when one considers that, at the origin of the interventions oriented to the active population as the target-group, there lie different conceptions, which lead to an extremely broad variety of initiatives, some original in character.

In Portugal, the access of the active population to training presents organisational and sociological constraints. An example can be put forward: the legal framework that, as far as training is concerned, demands the previous information and consultation of the workers' representatives is often not followed by companies. The rare implementation of workers' participation in this way may possibly have a cultural dimension, thus reflecting and hindering the social comprehension of the usefulness of training. This problem, regarding which trade unions have shown great concern, has caused the introduction of the issue of 'individual access to training' in the revision of the management of the European Social Fund in 1996. The revision aimed at making the access to training easier than it had been so far, appealing to the individual initiative and responsibility of both employed and unemployed workers.

Institutional interventions and experience in matters of continuing training are diversified, whether in terms of modality or in terms of responsible institutions. In the framework of the education system, recurrent education is the alternative for a second opportunity for young people over fifteen, as well as for adults who have gone beyond the age of normal attendance for primary and secondary education. This modality is defined as the characteristic of adult education which, in an organised way and according to a curricular plan, leads to the achievement of diplomas of several school levels and of certificates of professional initiation or qualification. As far as the Institute for Employment and Professional Training (Instituto de Emprego e Formação Profissional [I.E.F.P.]) is concerned, the essential objectives of its intervention in the sector of continuing training are: to provide employed and unemployed workers with an adaptation

to changes of technological, organisational or any other nature; to favour professional promotion; to improve the global quality of employment. The target-population of the activities developed in this training modality must undergo diagnostic assessment, which enables the identification of the skills acquired by means of training or by means of experience, as well as the assessment of aptitudes and skills. Still in the area of continuous training, one must mention the formation of managers and staff, aiming at the acquisition or enrichment of knowledge, skills, and aptitudes. In the continuing training provided by the I.E.F.P, the duration of the formative components varies according to the type of course: upgrading or development; remedial or perfecting; conversion or professional specialisation.

4.3. Participation in Continuing Professional Formation

The development of our society and its fast evolution leads to a high valuation of human resources and transforms *"the concept of continuing formation into a global project, with a common future, at a world scale, devising for Mankind education for life"* (Esparteiro, 1999:63).

"Besides the basic professional training, workers must go on learning during the period of their professional life in order to maintain their competence. Professional formation is recognised as a means to achieve such competence" (Leitão, 1996:9 II Cap.). Therefore, participation in formation is considered to be "the centre of the theory and the practice in adult education" (Darkenwald and Merriam, 1982).

According to Sérgio Leitão, *"... formation ceases to be a means of filling in places in the labour market and reaches out to the concept of continuous professional formation, in the sense that it makes use and knows the potential of those resources regarding the final aim of reinforcing the capacity of the areas where to innovate, to create companies, to adapt to the use of new technologies and to diversify economic production"*.

In 1976, the UNESCO and the OECD ratified the "Recommendation on the Development of Adult Education", a document which was guided by three fundamental references: Autonomy, which refers to the fact that people are responsible for their own education; Totality, which, from a horizontal perspective, refers to the whole span of human life, and, from a vertical perspective, refers to the multiple areas of knowledge; and Dialectics, once it demands the integration of the educational processes of children, youngsters and adults, and also demands the interaction between reflection and praxis.

In 1979, the UNESCO enforced new measures regarding professional training, in order to answer better the problems posed by the developments and changes at the economic, technological and social levels. Such problems arose from the *"...complexity of personal and social roles that each person is required to perform, and offer a greater equality in educational opportunity"* (Nunes, 1995: 236).

Several authors have as a major research interest the attempt to verify the relation between independent variables and the dependent variable (the participation of adults in continuing professional training), which is to say that they have addressed the factors influencing the participation or the non-participation in continuing professional training. Thus Brunner, Wilder, Kircher and Newberry (1959) have come to the conclusion that the adult population participating in formation activities came from different social levels: employees in technical jobs, people with a higher school level and the so-called young adults. Brunner et al. (1959) concluded in their research that the *"quantity of formal schooling may be the most significant determiner of the participation in all forms of adult education which have been studied"*.

Johnstone and Riviera (1965) assessed that the difference between adults' participation and non-participation lies in causes associated to age, school level, and residence. The location of the formation activities and the need to learn may pose obstacles to an individual's participation in formation activities. For non-participants, the obstacle that is more common is that they do not know where such formation activities are to be held (London et al., 1963).

For some years now the issues determining adults' non-participation in educational activities have been the focus of many authors, such as Cross, 1981; Darkenwald and Merriam, 1982; Scanlan and Darkenwald, Darkenwald and Valentine, 1985. The research undertaken by Darkenwald and Valentine (1985) brought about new problematic questions, which opened new horizons for further research in this area. These authors have identified a typology of reasons for non-participation: people hindered by personal problems, lack of confidence, educational costs, lack of interest in formal education activities, and lack of interest in the available programmes and courses.

According to Emmalow Van Tilburg (1985), the participation of adults in activities concerning professional formation is influenced by conditions derived from the quality of information regarding formation programmes, social involvement, difficulty in articulating the personal with the professional levels and internal motivation.

There are several models of participation, from which the following are selected: Cross's Chain of Response (1981); Darkenwald and Merriam's psycho-social interaction model (1982), and Boshier's Educational Participation and Dropout model (1973). Tuijman and Fagherlind (1989) defend the existence of three key-points regarding the factors influencing participation in adult education. These are: Sociological, characterised by demographic variables such as age, gender, education, social roles, social position and home-background; Psychological, addressing personality traits, intellectual capacity and attitudinal disposition; and finally Economic, which plays but a little part in the research concerning the participation of adults in formation activities.

The former paragraphs describe some of the existing models which relate to research on adult education and training. However, and in spite of such models also dealing with the factors influencing and explaining the participation or non-participation of adults in education activities, none of the models previously presented associates a full range of factors. Whereas as Cookson's model (1986), adapted from the ISSTAL (Interdisciplinary, Sequential-Specificity, Time-Allocation, Life-Span) model, is directly concerned with interdisciplinarity. It is the only model associating and interconnecting all the factors closely linked to the question of adult participation. According to Cookson (1986), participation in adult education *"is differently considered in specialised bibliography, as a dichotomic variable or as a trichotomic variable, which is to say that individuals are categorised as participants/non-participants, or as an alternative, as participants/non-participants/possible participants."*

All the research conducted within the theme of "The Participation of Adults in Training/Education" has followed the *"three main types of participation: attendance, involvement, and control. Their differentiation lies in the type of action according to which participation is defined, whether in events related to adult education or in research projects. However, the analysis of these types of participation categories must not be mutually exclusive or distinct, in the sense of creating an incompatible logic, since there are characteristics uniting them"* (Bagnall, 1989).

It is the above-quoted author who states that most research on the participation of adults in education activities is almost entirely based on "participating attendance", with the exception of the studies authored by Rosenblum and Darkenwald (1983), developed under the theme of the effects of the involvement of the participant in the planning

of educational programmes. Mezirow et al. (1975), focused on the participants' perspectives regarding their involvement in programmes of basic education, and Tough (1979) worked in the area of 'self-directed' learning.

The reason for the orientation of such studies towards "participating attendance" is explained by it being easier and safer to reach their quantification and their posterior contrast. Should one consider "participating attendance" as a dependent variable, dichotomically translated as "attendance" and "non-attendance", one can easily relate it to descriptive variables (regarding participants), the purpose being participation.

Darkenwald and Merriam (1982) underlined the existence of case studies based on the characteristics of participants. Other studies focused on the content of programmes (Bunnion, 1986), on their location (Johnstone and Riviera, 1965), on the obstacles to general participation (Scanlan and Darkenwald, 1984) and on the motivations leading to participation (Boshier, 1971). Houle (1961) was also guided by "participating attendance" when he developed his exploratory study of adults' motivational orientations regarding continuing education. Similarly, studies on educational needs (ACACE 1982; Fisher, 1986) and on the effects of the results of participation (Cookson, 1978; Darkenwald and Valentine, 1985; West et al., 1986) addressed participation only from the point of view of "participating attendance", either individually or with their own changes.

Bagnall (1989) states that *"in order to study participation in adult education, the tendency to centre studies on "participating attendance" must be reduced, since it singly does not encompass all the inherent aspects, whether to individuals or to planning". Still according to Bagnall, "it is necessary to pay more attention to "involvement" and "participating control", so as to develop programmes which enable the satisfaction of individual, social, political and cultural needs."*

4.3.2 The ISSTAL model

David Horton Smith designed the model of social participation: ISSTAL - Interdisciplinary, Sequential-Specificity, Time-Allocation, Life-Span. This model is the basis for studies leading to the determination of the factors contributing to the participation in activities of adult education. Based on this model, Peter S. Cookson (1986) developed a theoretical structure aimed at explaining the different factors comprised in the human condition, which may influence individual development in learning practices. That is to say that this author considers that human behaviour may be determined and foreseen after the analysis of individual and environmental aspects, which may be identifiable and measurable.

The ISSTAL model has a broad interdisciplinary scope, accepting the integration of the varied studies on participation in adult education, thus leading to a wider knowledge of the way the different factors inherent to the human condition may influence individual decisions. According to the ISSTAL model, the dependent variable (PAE-Participation in Adult Education) is the result of the combined and interactive influence of six classes of independent variables: External Context, Social Context and Social Roles, Personality and Intellectual Capacity, Attitude Dispositions, Retained Information and Situational Variables.

Regarding External Context, it may be defined as a group of independent variables referring to the individual's external environment, which, in accordance to Smith and Reddy (1972), form *"...an internal matrix in which social background, personality and attitude characteristics of individuals originate, develop and modify. In fact, internal individual characteristics derive their essence from social expectations, rules, structures, cultural models, human population and variables of the biophysical environment comprehended in the category of contextual characteristics."* (Gonçalves, 1996:67).

Social Context and Social Roles find correspondence in five types of the individuals' socio-demographic characteristics: physical and physiological aspects, attributed social positions and their roles, acquired social positions and their roles, experience and activities, resources, assets and access to resources. Together these components provide the constitution of behaviour models and experience leading to distinct perceptions of the knowledge of the world.

The third class of independent variables is Personality and Intellectual Capacity. Personality is a group of inherent mental characteristics which, despite the fact that they may undergo some changes, tend to resist circumstantial and temporal shifts. *"These characteristics encompass the individual dispositions of permanent character, such as thinking, feeling, wanting and acting in a certain way, to the disregard of other attitudes, depending on circumstances."* (Gonçalves, 1996:68). Personality is constituted by important factors that are associated with different modes of social participation, such as extroversion, ego, inner strength, self-confidence, efficiency degree, energetic performance, and stimulation.

Regarding Intellectual Capacity, the probabilities of a behaviour response depend on the disposition of the individuals selected for response.

Attitude Dispositions encompass internal psychological characteristics, transactional and lasting for less time when compared to personality and intellectual capacity. In comprehending values, attitudes, expectations and intentions, these variables are involved in a dynamic interaction with personality characteristics and intellectual capacity, thereby contributing to the individual's motivation.

The fifth class of variables, Retained Information, refers to the individual's 'continuous life', enabling a significant increase in secure and lasting information, stored in the memory in the form of symbolic and non-symbolic images. The purpose of these variables is to store and recover information, contrasting with the variables of the first two classes, which process and interpret information. The variables integrated in this class are images, beliefs, knowledge, and plans. These variables are crucial in the definition of the individual, to a higher degree than that of the previous variables.

The last class to be mentioned is Situation Variables. According to Smith, these variables are "the determiners which lie closer, in cognitive and affective terms, to voluntary human behaviour", which is to say that they exert the most immediate effects on Participation in Adult Education. This set of variables leads to complex and interactive effects on all the other sets of prior and lasting variables of the ISSTAL model that influence an individual's participation in Adult Education.

Besides aggregating all the variables previously described, this model includes three fundamental aspects that are important in the development of any research:

- Interdisciplinary Conceptual Framework - a perspective which includes concepts and interrelations articulated in the domains of Physiology, Anthropology, Political Science, Sociology, Social Psychology and Adult Education, contradicting the previously integrated idea that the domain of Psychology held the monopoly of definitions for this area.
- Sequential Specificity of Relations - the six classes of independent variables contained in this model are causally interrelated. With the exception of situational variables, all of them influence the dependent variable Participation in Adult Education (PAE) through one or more of the intervening variables. Therefore, the more to the left a variable is placed in the relevance scale, the higher will be the probability of their effects being mediated by subsequent and consequent variables. In contrast, the more to the right a variable is placed in the referred scale, the more specific is its role and situation in PAE.

- Time–Allocation, Life–Span Perspective - PAE is understood as an enlarged part of the model of behaviour of social participation, since it is seen as a demonstration of synchronic and diachronic co-variations, meaning that it is not only individual participation that has implications on other kinds of social activity. The ‘Life-Span’ aspect postulates that social participation (including PAE) tends to be suited in long-lasting models, in order to enable diachronic co-variation. Consequently, a person who, at thirty years of age, has reached a high degree of Participation in Adult Education is not likely to have diminished such participation when he or she reaches fifty or sixty. The reverse is equally important: a person who has had a low degree of Participation in Adult Education from a very young age is likely not to alter his or her degree of participation in the course of time.

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5 Spain

Introduction

Nobody questions nowadays the close relationship between work and training, but which of them goes first? Which subordinates which? Which are the possible interactions? How many ways have we to relate initial formal training to work? Training: does it create employment? What are the obstacles to job creation caused by non-existent or inadequate training?

It is a false hope to believe that training constitutes by itself a direct instrument to create employment. Rather current data indicates that the relationship is neither immediate nor direct. As individuals move up educational levels and achieve better qualifications, it is easier to find a job and there are more and better jobs available. Also there is less unemployment among groups consisting of highly qualified individuals than in other less trained groups.

Nowadays, it is common to accept that the market determines, more and more, the necessary qualifications. Thus, employers claim themselves to be, and some others agree, they are the only generators of wealth and employment. But this dynamic is resulting in workers being increasingly divided into two categories. These are a hyperactive minority, well paid and with great social prestige, and a majority with fewer qualifications and suffering from the constant ups and downs of the labour market, permanent prisoners in the circle formed by periods of employment and unemployment. Thus, inequalities increase. Rich and qualified people continue to improve their position while those in a weak labour market position and with poor qualifications are increasingly at risk of social exclusion.

International competitiveness puts under serious pressure on companies and endangers their future prospects. The drive to improve international competitiveness has provoked a crisis in the decline of traditional employment policies. With this situation, there is only one way out: to be proactive. We must consider the situation again and find opportunities in overcoming the problems.

There are other current problems that can be used as source for the creation of employment and training action. As an example of our proposal we can mention the fight against racism and the preparation for integration of immigrants in our country with the objective of turning our old societies into new multiethnic and multicultural environments. The fight against underdevelopment and the levelling of differences between north and south are also new opportunities for initiatives in employment and training.

5.1 Addressees

Given that education is the most important instrument to develop a policy of social equality, the addressee universe of vocational training is dramatically constituted by young people without a job and who did not finish their primary studies. People with physical or mental disabilities, immigrants, unemployed people with scarce education and qualifications that are not valued in the labour market, and more and more disadvantaged young people are included in the population for whom vocational training should offer a way forward. Women are another target group, as they are to a great extent excluded from the regulated system of education and training; they are victims of a social dynamic that increases inequalities. Education is a powerful determinant of future prospects: the best and widest employment possibilities for those that received

the greatest education and training opportunities, while chronic unemployment and poor employment conditions face those who participated least in education and training.

We find a short-term instrumental approach develops under pressure of a yearning for an almost immediate job that produces a dynamic of short, intensive courses in very specific techniques which exemplifies just learning to do things. And the hope that training, by itself, constitutes a tool to alleviate unemployment, increases a large amount of courses that almost only aspire the development of skills, without bearing in mind the sociological characteristics of participants, their aspirations or cultural, educational and basic training needs. It is always pursuing the last technique that will quickly change because knowledge advances, just to reflect the changes of the market or for the snobbery of being up to date.

With this situation, we think that it is better to opt for innovative training that takes account of 'culture' than just offering more technical, intensive, short-term training. Instead of objectives focused on learning things, we must emphasise educational processes in which learning to do things relates what is done and learnt to what we are and want to be, to the cultural, environmental and social conditions of the environment in which each person is embedded. In conclusion, we must develop occupational training processes that facilitate the general and specific instruments and cultural knowledge that allow young and adult people to work as well as adapt themselves to the constant and permanent change that the current society presents without having to enter the unemployment-work circle.

The type of training that we advocate should also be impregnated by two essential characteristics in order for people to act appropriately in the future. People need to be able to learn to find new development opportunities when faced with problems or changes and the training needs to be organised and structured based on the workers' knowledge and skills. These two characteristics are the basic co-ordinates to achieve survival and the success in the market of companies and organisations in the future.

5.2 Context, significance, evaluation and impact of the first agreements

In Spain, as well as in other countries, there have been changes that have had repercussions on the research and practice of training in companies. First, there have been changes in the demographic background of people incorporated into the Labour Market. The reduction in the number of young people and the resulting ageing of the active population, the increase of women's participation, the increase of minority groups and the multicultural composition of the labour force constitute aspects that affect contents, processes and methodologies of training systems.

Second, the increase of job posts in the service sector introduces new qualification demands that were not needed in the industrial sector jobs. The need to participate in the delivery of the customers' service as it is produced, the need to adjust it to that client's demands and the requirements related to the quality guarantee are elements that have a clear influence on training and the role it plays in this type of organisation.

The third aspect is constituted by the growing influence of international markets. This means that organisations must consider the need to participate in particular product markets, labour markets and financial markets, and this involves a labour force that is able to manage and act in a multicultural environment.

For these reasons, we agree with Ford (1997) that *"current posts often require complex cognitive skills to manage manufacturing and customers' service systems that are more sophisticated and complex in technology, as well as the interpersonal skills that*

are needed to function effectively in working teams. Thus, continuous learning is more and more important to reach organisational efficiency”.

The training and ‘re-education’ of adults in terms of the changes and new qualifications required by the occupational transformations are one of the most important questions in a labour environment where much work-related knowledge and skills to work quickly becomes redundant and must be substituted by other knowledge and skills that must be acquired.

Another challenge involves the emphasis placed on the optimal increase of each worker’s potential through continuous training in the labour and socio-economic context, if we want to avoid social exclusion and wish to achieve satisfactory levels of social integration (De la Torre, 1997).

A third challenge involves training young people who have reached neither acceptable levels of basic training in the formal educational system nor have appropriate qualifications for the new job posts. This question is related to the training and preparation for work of unemployed people.

These and other questions reveal that continuous training in companies is an important and strategic performance framework in the economy, society, current productive system and labour market. Such training is vital in order to achieve appropriate levels of supporting economic development and to improve people’s quality of life. Thus, not only companies and their training departments, but also governments and social agents in the labour environment are highly interested in this phenomenon. Therefore, it is relevant to analyse and value the developments produced in the last years in our country in the framework of continuous training.

These changes have been produced by the signing of the first national agreements on continuous training at the end of 1992 and their development from 1993 by means of the FORCEM foundation created for its development. A reflection of the Spanish situation as regards continuous training, at the moment of the signing of the national agreement on continuous training, is obtained from the FPC survey developed during 1993 by the Ministry of Labour and Social Security following the guidelines provided by Eurostat (Ministry of Labour and Social Security, 1994). The aim of the survey is to know the number of companies and workers involved in training, as well as the characteristics of those companies that developed training in 1993, the characteristics of those workers that received such training and the characteristics of the training that was developed. The unit of analysis was the company. The study was undertaken in companies with more than ten workers. Thus, bearing this in mind, results cannot be extrapolated to the total of the active population employed in other ways and, therefore, we cannot establish comparisons with the levels reached in the continuous training of workers after the first agreements on continuous training (1993-1996). However, the numbers we provide next do allow us to demonstrate the limited scope of continuous training and the big relative differences of such scope in the different groups that can be established as regards a series of variables such as company size, sector, age, workers’ qualifications and occupational level and other relevant factors. It is also possible to obtain certain information about the type of training and some indicators of its quality.

From the 12,000 companies studied in the sample, only 26.5% developed training in 1993. Nevertheless, these training companies involved 56.5% of the workers employed by the sample companies, since training action is greater in larger compared to smaller companies. Just 20% of the sample companies with 10 to 19 workers developed training against 31% of companies with 20 to 49 workers, 42% of companies with 50 to 99 workers and 53% of companies with 100 to 250 workers. The largest companies developed training in a much more significant proportion, around 76% in companies with 250 to 499 employees) to 83% of companies with 500 to 999 workers.

Training is more widespread in companies in the service sector, from which training is developed in 32% (this relates to the 61% of service workers included in the sample), followed by companies in the industrial sector 25% of companies of which trained (covering 56% of workers in the sector), and a long way behind construction companies where only 14% of companies trained (employing 34% of workers of the sector). The detailed analysis of this information shows that there is less training in hotel trade companies (11%), companies of wood, cork and furniture (12%), building companies (14%) and the textile, tailoring, leather and shoe sector (14.5%). By contrast, there is more training in companies undertaking computer science activities and research and development (in both cases covering more than the 77% of companies in the sector). Therefore, companies in sectors which are less developed undertake less training, while those in more highly technologically developed sectors are much more likely to offer training.

As regards the type of training, the activities that are most common are training courses: 80% of training companies have used them, and in 45% of cases it has been the exclusive type of training. Training on the job was used by the 37% of the training companies (almost 10% of total companies), while 51% of training companies used a different type of training (13.5% of the total). As regards the employees' participation in training, one out of five workers from the surveyed companies participated, with more from the service sector (24%) than the building sector (8%). In small companies, the proportion of workers that participated in courses was much smaller than in large companies (it only reached a 6% of the total sample in companies with up to 19 workers whereas for companies with more than 1000 employees it reached 45%).

As regards sex, the majority of participants are men (78%). However, if we bear in mind the composition of the sample in terms of sex, the participation rate is 21% for men and 18% for women. Given that female presence is bigger in the service sector, we also have a bigger proportion of female employees in the service sector that attended training courses. On the other hand, as the size of the company increases, it also increases the proportion of workers of both sexes that participate in courses, but from 50 employees, the male participation rate surpasses female participation. In terms of the occupational level, the rate of workers that receive training also presents significant differences: the rate for managers and superior technicians is 32% and that of medium professionals and technicians 37%. By contrast only 26% of office workers and workers from other services, 15% of industrial and building workers, and 8% of unqualified workers participate in training courses.

If we consider the content of courses, production techniques, languages and sales, marketing and distribution are the categories that occupy the greater proportion of hours (between 10 and 15%). Nevertheless, numerous categories with smaller proportions involve an important accumulation of courses focused on training the most qualified professionals (management and organisational techniques, accounting and administration, employment management, computer science for professionals, etc). Proportionally, there much less course content is directed to training less skilled employees.

5.3 Training in companies

Surveys also show some aspects related to the companies' policies and training programmes (or the lack of them). First of all, they aim at improving the professional qualification of workers, this being the main reason for training in 48% of companies. Other reasons are the need to recycle due to technical and organisational changes (27%), the adaptation of new workers to the productive system and internal promotion (each occurring in 10% of companies). On the other hand, 65% of companies that did not develop training in 1993 argued the main reason was that their workers were well qualified. 11% of these companies underlined that initial training received by workers was

enough and 10% pointed to financial difficulties in the company as the reason for non-participation in training.

From the companies that used training, 27% have a training plan or programme, and 20% have a specific budget. A high proportion of the companies analyse the technical and personal needs of staff in thinking about the future (81% of companies that had training plans or programmes) and the individual training needs of workers (70% of companies). The proportion of companies with formal plans increases with the size of the company. In order to carry out the analysis of individual training needs, and to verify work on training development, personal interviews were conducted, with either the whole staff or a part of it. As regards the analysis of training effects, of the 60% of companies that do it, this covered 82% of workers (and this increased to 97% in companies with more than 1000 workers). 90% of these companies “check that new knowledge is applied in the job” and 83% “value participants’ satisfaction levels” as regards the received training.

However, only 7% of companies established in collective agreements the obligation to provide training, though this percentage was 45% for companies with more than 1000 workers. As can be seen, the reach of continuous training was very limited and big differences existed as regards its incidence in the different groups in terms of the size of companies, the sector, sex and occupational level of employees. Those differences show a phenomenon known as the ‘Mateo effect’ of training which underlines that there is more training in groups that are better qualified, whereas the resources and efforts dedicated to this field are far fewer in those groups with few qualifications. On the other hand, the quality level of training (if we consider it from indicators such as integration to a training plan, design from a previous systematic analysis of needs and development of a rigorous evaluation of effects) is low in general. Finally, there are few companies and sectors that consider training as an aim of negotiation between employees and companies, given the low percentage of cases in which this aspect was the focus of collective negotiation.

The National Agreement on Continuous Training signed by the CEOE and CEPYME business organisations and the CCOO and UGT trade unions, with the later addition of the CIG, has produced the extension and consolidation of continuous training. The Foundation for Continuous Training (FORCEM) has monitored educational actions to improve the qualifications of those employees that work in the companies of our country. Considering the financial resources that are recently available in Spain, an important part of the educational system begins to think about generalising training in order to make it more widely available, which means, in a modern society, thinking in educational systems that are available for people in their adult period and professional life. The idea that education is for children and adolescents has given way to the maintenance of the educational action or learning in a continued way throughout the individual’s life, particularly including training for each citizen’s professional development. Continuous training, as understood by the Tripartite National Agreement, is precisely training for professional development. In short, we are talking about a new and essential part of our educational system whose implantation must be considered by the whole society and, particularly, by those who analyse continuous training.

Courses financed by FORCEM are in the majority of those offered outside traditional working hours, and this is truer as the size of companies diminishes. This fact is an obstacle for those expected to attend the courses, above all the longer ones and those that offer greater learning possibilities. The temporal organisation that offers greater pedagogical advantages involves interrupting work to develop training. It is beyond doubt that in a recurrent system, to alternate periods of work with study is the best method for continuous training.

We will have to develop studies about the time that is dedicated to continuous training. Not only should those people who manage to combine work effort with subsequent study be the ones to benefit from the opportunities that continuous training offers. Even today, in many Spanish companies the calculation of working involves consideration of time lost through absenteeism, illnesses and holidays, but not the hours dedicated to continuous training. It seems that we still do not recognise the right to continuous education.

5.4 Continuous Training Functions

We believe that the functions of continuous training in companies go beyond those that could be deduced from a superficial examination of the needs derived from current production plans in each company. In effect, we can classify the intervention of training actions in the following way:

To provide general basic knowledge. Sometimes, problems experienced in facing changes and developing the competencies that are required in a job post are influenced by the lack of basic cultural instruments that should have been acquired in childhood or youth and that are needed nowadays to understand new technologies and acquire new skills.

To update knowledge. The fight against becoming old fashioned must be faced permanently. We must bear in mind that the most important characteristic of the technical and scientific revolution is permanent change. It is not only a matter of adapting ourselves to a technology in a given moment or to a new way of doing things. The knowledge in every discipline and subject and the contents of each job change constantly and in a faster way.

To acquire new competencies. 'Retraining' is a widely used word. The need to change jobs or occupations, either in the same company or in another, makes formative actions directed to reskilling or professional retraining more necessary. Advancement in a professional career or rotations through different job posts force us to organise learning processes to acquire new competencies. To facilitate or make new personal developments possible must also be considered as one of the training functions of companies, since without the acquisition of new knowledge and skills it is very difficult to undertake new routes or aspire to promotion.

To cover the whole field of competencies and functions. Quite often, the functions or competencies of a job, either because of their complexity or because of the addition of new tasks, are greater than the ones people assigned to those posts possess. We can also find that a person who is generally well qualified is promoted to another post that might require completing or increasing skills so as to be able to carry out the totality of functions that the new task involves.

To transfer knowledge. We find that more and more concepts, techniques or procedures developed in one field or discipline are successfully applied or transferred to other domains.

To manage the existing capital of competencies and human potential. If human capital is the key factor to ensure companies' permanence and success in the market, to achieve human capital development is one of the key tasks that employing organisations, with training as an indispensable tool. Companies try to find out, keep and take care of talent. Loss of talent where the best quit has a double penalty: the company is impoverished and other businesses get stronger. On the other hand, the current human potential, represented by people with appropriate experience and training during their career, will give birth to the future systems and managers that will work in companies to ensure effective performance in the market.

We agree that all these points are crucial questions to which the whole training system must attend, trying to correct or compensate educational inequalities in order to fight becoming old fashioned and place us in the new co-ordinates resulting from technological and scientific change. To answer the requirements that the new economic situation demands, to favour the creative and free integration of people in the productive system depends more on their own abilities than on other social conditions that create inequality.

5.5. Problems for training policies in Spain

As opposed to the optimism derived from the first undertaken steps following the signing of the Tripartite Agreement, it is necessary to note the different approximation to continuous training that managers and workers develop in their companies. A territorial training delegate (De la Cruz, 1998) lists, among others, the following problems related to continuous training:

- For companies' managers and employers' associations, training is an instrument to develop the company; production demands take preference. The new production norms, new products and reorganisation of companies constitute the criteria that guide the programming of training. Employees' adaptation to new job posts or to a new organisation prevails.
- There is a lack of a transparent structure of qualification and authenticated certificates that recognise skills acquired through continuous training.

The beginning of procedures of certification, authentication and recognition of acquired skills is more and more urgent in order to motivate participation and reinforce the personal effort that participants develop and to establish new actions of positive discrimination as a form of second chance development.

- The traditional low valuation that professional training has received in our country is in opposition to the academic traditional training of University education. This, together with the fact that most workers suffered an educational system in the past that did not guarantee a general basic education for the total population, affects in an important way the definition of priorities as regards objectives and addresses of continuous training actions.
- The non-existence of a framework that covers the whole professional training system (of initial, occupational, and continuous training) related to adults' training system leads to a great amount of activity, but the actions lack co-ordination.
- The available time for training is usually scarce. Most training is developed outside working hours, above all for group plans and the PYMES (small and medium companies). To find time for continuous training can and must be a meeting point in the debate about the reduction of working hours. The time dedicated to training should be paid, at least a part of it, as is done in other countries.
- Knowledge and technique continue to be separated. The traditional separation between knowledge and performance, between intellectual and manual work cannot last any longer. Experience in industrial updating underlines the need to have a wide general or basic training as a crucial step to have access to the new qualifications that the scientific-technical society demands.
- Furthermore, training programmes must consider the promotion of training, its benefits and advantages for workers as well as companies. The lack of incentives or acknowledgements constitutes an added difficulty to the participation of many employees in continuous training actions. Usually, managers are self-made, thanks to their experience, and do not possess or apply adequate management criteria.

- For similar reasons, those attempting to use models of open and flexible training based on new technologies (Blázquez, 2001) and self-directed learning face great difficulties when trying to introduce such training.
- The non-existence of an efficient communication system among the state training developer, the applicant, companies' management, workers' representatives and employees that must participate in the planned learning processes is quite often the source of inefficiencies and distortions when establishing a direct relationship between needs and supply as well as when organising the groups of participants in the different actions.

As opposed to the optimism that has also affected us, we discover that the organisation and development of continuous training is nowadays a leading topic in newspapers. However, it does not appear in a discussion of the results obtained in the application of continuous training policies (Castillo, 2002), but for the irregularities that have been produced with public money destined for employees' continuous training, and that have been detected by the National Audit Office, and made by business organisations, trade unions and other groups between 1996 and 1998.

5.6. New challenges for continuous training

Despite all this, the demand that companies make upon training has increased during the last years, quantitatively (in the number of formative actions and courses) as well as in the type of interventions performed. This has been produced to such a degree that training has extended itself through the whole Spanish geography, though with some difficulties, such as Homs (2002) points out, and more than one and a half million people are trained annually. This is an impressive record. The increase of such formative demand responds, above all, to the pressure to which companies are subjected and to the highly competitive environments in which they have to develop their work. The new rules of the game force them to be more and more flexible in order to respond to demanding clients that value the quality/price relationship and are open to new proposals and products. This pressure requires the search of new ways for the internal organisation of work.

The gradual client orientation of companies will involve the substitution of hierarchic systems by others based on the logic of productive processes. These should underline the key elements to the company's success and to strengthen those procedures that guarantee the quality of the article or service: greater weight to those in charge of process lines, increase of personal participation and development, importance of communication, of team work, of autonomy, and of responsibility. On the other hand, people in charge of companies are more and more aware of the limitations of traditional elements (capital, technology, location etc.) as source of advantage against competitors, since all of them usually have similar financial conditions and access to technologies. By contrast, other factors are increasingly valued such as trademark, reputation and knowledge of core activities (Álvarez Alonso, 1999). Trademark property is identifiable, image and reputation are measurable, but companies' knowledge resides in their people. We know that the majority of organisations have the necessary knowledge to be competitive; the difficulty lies in how to manage it in order to add value to company processes.

The goal is relatively easy to achieve. We only have to achieve that the knowledge that has been accumulated in the organisation, that is to say, the set of 'information' and 'experiences' of members is shared. Thus, each will achieve goals with a greater efficiency and will add more value to the chain of the process. Technological advances have allowed that information 'is free' and easily accessible. The challenge for organisational managers is not to inform everybody and make them 'know everything', but achieve a state whereby users can obtain information according to their needs. Another

important problem is people's enormous resistance to share information, since it is still believed that holding information is a synonym of power.

Training suppliers will be required to offer fewer 'courses' and more work with people in order to contribute to a new culture of co-operation and collaboration, favouring knowledge exchange at all levels. We will have to 'extract' the knowledge (plus experience) that has been accumulated in the company's employees, transform it with 'pedagogic' aims to make it available to everybody, and prepare people to learn (to distribute information) and train themselves. Training agencies are working on projects that break the limits between training and information, using the opportunities of the Information and Communication Technologies (ICT).

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6 United Kingdom

6.1 Introduction

Considerable attention has recently been given to issues of skill development and participation in continuing vocational education and training (CVET) in England, so this review is able to draw extensively upon a number of recent studies in this area. At the national level, a comprehensive research review on Skills In England 2001 has recently been produced by Mike Campbell, Simon Baldwin, Steve Johnson, Rachael Chapman, Alexandra Upton and Fiona Walton of the Policy Research Institute of Leeds Metropolitan University.

At the sub-regional level Institute for Employment Research (IER) and IFF Research have completed the Coventry and Warwickshire Survey of Employers 2002. Coventry and Warwickshire is part of the English West Midlands region, whose major city is Birmingham. The key findings as they relate to skill development and participation in continuing vocational education and training provide the local context for the Participa project in England are provided in a separate project paper.

The previous Participa paper on Innovative attempts to support learning through continuing vocational education and training in advanced supply systems in the automotive and aerospace industries by Alan Brown, Ed Rhodes and Ruth Carter mapped out a promising area of CVET. However, that paper highlighted a key finding that most continuing vocational learning takes place outside formal organised training. This will be investigated further in a subsequent phase of the project. In particular, we will analyse interviews with workers at a range of levels in the engineering and Information and Communication Technology (ICT) sectors who have been involved in substantive CVET. Note we will use interviews with up to 60 respondents rather than questionnaires to generate this data in order to produce case studies of the effectiveness of different approaches to CVET, and in particular the relationship between CVET and learning while working.

One final point concerns our focus upon technical workers. In the English context, it is important to make two points. First, far fewer people than in other European countries now receive intermediate level training. This means it makes sense for us to interview graduates who have been recruited to such positions. Second, because the decline of intermediate skills training has been so marked over the last twenty five years it makes sense for us to interview people trained under the 'old' system, so that we can provide a commentary upon different models of CVET. The final part of this report, section 4, will therefore provide a background to the use of graduates as technical workers in England.

Context: skill development in England

6.2 Demand for Skills

Changes in occupational structure, in qualifications and in skills required vary by economic sector and region, but overall the 'skill intensity' of technical workers' jobs is increasing. This has implications not only for initial vocational education and training, but also in the increasing requirement for upskilling through learning while working, self-directed learning or participation in continuing vocational training. As a consequence the qualifications level of technical workers has been rising (including through increasing numbers of graduates working at this level), people in these jobs need more training, and more time is required after initial qualification to reach experienced worker standard than previously.

The scale of upskilling required for those already working in technical jobs substantially exceeds that of the initial skills formation of those training to enter technical occupations. Technical workers increasingly need not only to update their technical skills but also to develop further a range of more generic skills, including planning, problem-solving and communication skills. IT skills, management skills and learning how to learn and how to support the learning of others have also gained in significance. There are also very substantial regional variations in the pattern of recent, current and expected future skill needs (Campbell et al, 2001).

6.3 Supply of Skills

There are substantial variations in attainment levels across large sections of the workforce with, overall, more than 1 in 4 of the economically active still having no qualifications or qualifications below NVQ Level 2 or equivalent. Those most likely to be poorly qualified include the unemployed, economically inactive, older individuals, those employed in manual occupations and some ethnic minority groups (Campbell et al, 2001).

Participation in post compulsory education and training amongst young people has increased considerably over recent years, though by international standards youth participation in full-time education remains low. Participation in adult learning is relatively constant over time and varies significantly across different groups in the workforce with the lowest levels being amongst older workers, those in unskilled, semi skilled and skilled manual occupations and those who are already poorly qualified (Campbell et al, 2001).

Workplace training has increased in recent years, though again, access to it is unevenly distributed across the workforce with semi and unskilled manual and service workers, part-time workers and older workers being amongst those least likely to receive training (Campbell et al, 2001). Technical, managerial and other specialist staff are much more likely to receive continuing vocational training.

Skills Imbalance

In terms of international comparisons of workforce qualifications, the UK is around the OECD average in relation to the proportion of the workforce with qualifications up to craft level. However, it appears to be above average in relation to older workers and below average in relation to younger workers. This is due to the partial collapse of the apprenticeship system from the 1970s. On the other hand, with the development of a mass HE system the UK now has the highest rate of university graduation in the OECD. Participation rates in job related education and training are amongst the highest in the OECD, though the actual amount of time that each participant actually spends is relatively low (Campbell et al, 2001).

6.4 Qualifications of the workforce

The expansion of Higher Education has resulted in an increase in the supply of graduates into the labour market. Mason (2001) is concerned that this increase is at the expense of individuals who, previously, would have undertaken specific employment-related intermediate level training. In particular, the ratio of graduate employees to those with higher intermediate qualifications has increased from 1.38 in 1988 to 1.56 in 1998 (Mason, 2001), and graduates are increasingly recruited to positions that, in the past, have been filled at technician level. Mason suggests that these changes are partly as a result of changing demand (i.e. the need for a higher standard of performance and / or a higher level of skill or knowledge). However, they are also due to the lack of supply of people with 'the skills and knowledge most easily acquired through employment based intermediate skills training' (p 21). Modern Apprenticeships were devised to fill this gap, but so far they have had only limited success. The development of two year Foundation Degrees is an alternative way of trying to develop an appropriate combination of intermediate level academic and workplace learning.

6.5 Participation in Learning

Increased participation in continuing vocational education and training can be tracked fairly easily but most learning and development that takes place in the workplace does not involve formal training nor is it accredited. Therefore much skill development of the workforce is not reflected in increases in participation nor in the acquisition of qualifications.

The 1998 National Adult Learning Survey (NALS) showed that 26% of adults had not undertaken any formal or informal learning within the previous three years. Sargent (2000) analysing a NIACE survey of over 5000 adults showed considerable inequalities in participation in learning, with the least likely to have engaged in current or recent learning being:

- Older individuals - participation reduces significantly with age, with, for example 41% of those aged between 45-54 participating in learning compared to 70% of 20-24 year olds.
- The economically inactive - with 30% participating compared to 50% of those in jobs.
- Skilled, semi-skilled and unskilled working class - with around 30% participating compared to 51% of the lower middle class.
- Those who finished their initial full-time education at the earliest age - with less than 20% participating compared to 58% of those who completed their full time education aged over 18.

The attitudes towards learning in the past also seem to be projected into the future. The NIACE survey found that 38% of all adults were either very or fairly likely to take up learning in the next three years. This included 76% of those currently learning and 60% who participated in learning in the past three years. However, only 25% of learners who had last participated in learning more than three years ago and 12% of those who have undertaken no learning since leaving full-time education indicated that they were likely to participate in the future (Sargent, 2000).

6.6 Non-participation in learning

NACETT (2000) identified a number of barriers to increasing both the overall skills and qualifications of the workforce and reducing the inequalities in learning participation of adults:

- relatively low achievement amongst boys, compared to girls, at ages 11 and 16;
- large disparities in performance across Local Education Authorities in schools at all ages;
- vocational qualifications not given parity of esteem with academic qualifications;
- Insufficient numbers of the workforce are trained to level 3;
- The non-completion rate for vocational qualifications is high;
- Young women are significantly under represented in level 3 education and training;
- Adults face barriers such as lack of finance, lack of time and early unhappy learning experiences.

The last barrier was seen as particularly significant. Hillage et al (2000) thought that individuals who were seen as ‘non-learners’ could be split into two different groups

- Individuals that would like to undertake learning but are unable to do so because of external barriers;
- Those that do not want to engage in learning, through lack of confidence, motivation and disaffection.

Hillage et al (2000) believed that the barriers to learning could be categorised as:

- Physical and material - e.g. finance and time
- Structural - around the way education and training is provided
- Attitudinal - including confidence and motivation.

These categories strongly reflect the findings of the NIACE survey when respondents (with the exception of those who had stated that they are ‘very likely’ to learn in the future) were asked if anything was preventing them from learning. Sargant (2000) identified the key barriers as:

- Not interested / don’t want to - 27% (attitudinal)
- Work / other time pressures - 17% (physical and material)
- Too old / ill / disabled - 15% (physical and material)
- Childcare / caring responsibilities - 8% (physical and material)
- Cost - 7% (structural).

A similar survey undertaken for the OECD (2000) suggests that time and cost are the key barriers facing those who would like to participate in job-related training but have not done so in the last year. The OECD benchmarks the situation in the UK with that in other OECD countries. Job-related training is more common than in any of the other OECD countries surveyed. However, UK non-participants were more likely to identify cost, lack of employer support, time pressures at work and other institutional barriers (including provision of courses and inconvenient time of courses) as barriers, as compared to their OECD counterparts.

The OECD study identified the main barriers why some non-participants who would have liked to take job-related continuing education and training did not do so as:

- Situational barriers (too busy / lack of time; too busy at work; family responsibilities; lack of employer support)

- Institutional barriers (course not offered; too expensive / no money; inconvenient time; for a very few it was a lack of qualifications)
- Dispositional barriers (for a very few language or health were the problem).

6.7 International comparisons of (non)participation in continuing training

The UK's overall participation rate in continuing education and training amongst those aged 16-65 is 44% - the 6th highest in the OECD behind Finland, Denmark, Sweden, Norway and New Zealand (OECD 2000, Fig 2.6, page 56). Participation in job related continuing education and training is high, relative to other OECD countries. Of the 10 countries for which comparable data are available, the UK has by far the highest participation rate – 56% of employed adults had participated over the previous year compared to an OECD average of 34% (OECD 2000, p 201, Table C.71). On the other hand, the average actual number of hours of training that each person undertook was the second lowest. O'Connell (1999) has shown that the total training 'effort' or volume as measured by the combination of both these indicators (ie the average duration in hours per employee), puts the UK second only to New Zealand and on a similar level to the Netherlands and Ireland.

Training tends generally to reinforce already existing differences in skill attainment (OECD 2000, p202; OECD 2001a, p90). Both the participation rate and mean number of hours of training per person vary by level of educational attainment, not only in the UK, but throughout the OECD countries. In the UK this process of exacerbating existing skill inequalities appears less intensive than in most OECD countries, but this does not take cognisance of the fact that learning while working in more challenging jobs is very prevalent and this does stretch those inequalities. Whilst it is true that the percentage of adults with below upper secondary education who participate in job related education and training is well below that for those with a university education in the UK (44% compared to 70%), both these figures are the highest in the 11 OECD countries studied. Moreover, for every age group (from 16 to 65) UK participation in job related education and training is above the OECD average (OECD 2001b, Figure 1.1, p144). However, this may be associated with a relatively high labour turnover in the UK compared to many countries, and a consequently greater need for induction training, or with a need to undertake 'remedial' training. It also reflects the under-development of the initial skills formation system compared to many other countries.

McIntosh and Steedman (2001), using IALS data (OECD and Statistics Canada, 2000), examine the extent and intensity of training across 6 countries (France, Germany, Netherlands, Portugal, Sweden and the UK) for the 'low skilled' - those with qualifications below upper secondary level. While overall the UK has the second highest rate (7%) of workers receiving some sort of training in the 4 weeks prior to survey, the less well educated get less training than their more highly educated counterparts in the UK – a situation paralleled in Portugal and Sweden but not in France or Germany. Analysis of IALS data, however, shows that those with low literacy scores and/or levels of initial education, receive less work related training. This appears to be because they are less interested in undertaking training rather than because organisations want them to undertake less training than their more highly educated colleagues, with higher IALS scores. They hypothesise that, especially for those at IALS level 1, they do not perceive its relevance because they are generally not required to carry out tasks requiring such skills at work.

6.8 Adult Participation in Workplace Training

6.8.1 Tabular representation of patterns of participation in workplace training

Table 1 shows that nearly all employees in a sample of 4000 medium and large employers (with over 25 employees) received some on-the-job training in 1998. These employers are also very likely to provide off-the-job training, with about 40% of these employees receiving some off-the-job training in any given year. The inclusion of all employers reduces the relative incidence of all types of training quite sharply, with about 25% of these employees receiving some off-the-job training in 1999 and 2000. The Labour Force Survey asks employees about the incidence of job-related training in the previous four weeks: and in 1998 15.6% had received some job-related training, of which 8.6% had received off-the-job training. Much of this training, however, tends to be of rather short duration.

Table 1: Job related training by employers and employees 1995-2000

	Source	1995	1996	1997	1998	1999 5	2000 5
Employers providing off-the-job training	SNIB1, 3	82%	84%	82%	82%	34%	41%
Employees receiving job related training	LFS2,4	14.2 %	14.8%	15.4%	15.6%	N/A	N/A
Employees receiving off-the-job training	SNIB1	44%	44%	41%	38%	22%	26%
	LFS2,4	8.7%	8.5%	8.6%	8.6%	8.6%	8.3%
Employees receiving on-the-job training	SNIB1	-	-	-	91%	N/A	N/A
	LFS2,4	3.6%	3.9%	4.2%	4.3%	4.4%	4.6%

Notes:

- 1 Off or on-the-job training over the previous 12 months.
- 2 Job-related training in the last 4 weeks.
- 3 Based on all employers (4000) in SNIB ie with over 25 employees.
- 4 Due to a change in the LFS questionnaire, data from 1994 onwards are not comparable with earlier figures.
- 5 Data before 1999 is employers with more than 25 staff. 1999 and after is all employers.

N/A: not available.

Source: Skills Needs in Great Britain and Northern Ireland

LFS Spring 1998, Education and Training Statistics for the UK 1998 and 1997, DfEE

LFS Spring 1999, Education and Training Statistics for the UK 1999, DfEE

LFS Spring 2000, Education and Training Statistics for the UK 2000 DfEE

Learning and Training at Work 2000 DfEE.

Table 2 shows the effect of small companies is clearly marked in that they are much less likely to provide formal training, particularly off-the-job training. On the other hand, two thirds of all companies, including a majority of even the smallest firms, provided some on-the-job training.

Table 2: Proportion of employers providing on and off-the-job training by firm size

Number of employees	1998 1		1999 2		2000 2	
	% providing off-the-job training	% providing on-the-job training	% providing off-the-job training	% providing on-the-job training	% providing off-the-job training	% providing on-the-job training
1-4			25%	49%	33%	59%
5-24			47%	77%	54%	81%
25-49	79%	90%	72%	85%	78%	89%
50-99	84%	89%				
100-199	89%	93%	82%	88%	92%	94%
200-499	92%	95%	89%	94%	96%	93%
500+	92%	95%	91%	94%	98%	92%
Total	82%	91%	34%	58%	41%	66%

Source: 1 Base: all employers - 1998 (4000) with more than 25 employees - Skills Needs in Great Britain and Northern Ireland, IFF Research

2 Base all employers (4000). Learning and Training at Work 2000 DfEE.

Table 3 shows there are quite wide sectoral differences in the provision of job-related training in the previous four weeks: with an employee in public administration, education and health almost three times as likely to have received some training than an employee in agriculture, forestry and fishing.

Table 3: Participation by employees in job-related training in the last 4 weeks

	1997	1998	1999	2000
Agriculture, forestry & fishing	6.9%	9.8%	10.2%	8.1%
Energy and water supply	19.8%	19.4%	15.4%	17.7%
Manufacturing	10.5%	11.0%	11.1%	11.5%
Construction	11.9%	11.8%	12.8%	11.9%
Distribution, hotels & restaurants	13.7%	13.1%	12.8%	12.8%
Transport	10.7%	11.0%	10.6%	11.3%
Banking, finance and insurance	16.9%	17.6%	18.2%	16.8%
Public administration, education & health	21.9%	22.4%	23.0%	23.6%
Other services	14.5%	14.1%	13.7%	15.9%

Source: LFS Spring 1997/1998 in 'Education and Training Statistics for the UK 1997/98, DfEE

LFS Spring 1999, Education and Training Statistics for the UK 1999, DfEE

LFS Spring 2000, Education and Training Statistics for the UK 2000 DfEE.

Table 4 shows the sectoral differences in the provision of off-the-job training by employers in the previous twelve months are less marked, with differences clearly relating much more to size than sector.

Table 4: Provision of off the job training by industry sectors over the last 12 months

	1996 1	1997 1	1998 1	1999 2	2000 2
Manufacturing	78%	77%	79%	30%	44%
Mining, utilities & construction	83%	78%	76%	31%	35%
Distribution and consumer services	79%	79%	79%	25%	32%
Finance & business services	85%	84%	79%	38%	41%
Transport, public administration and other services	80%	85%	88%	42%	54%
Total	84%	82%	82%	34%	41%

Source: 1 Skills Needs in Great Britain and Northern Ireland, IFF Research Base 4000 Employers with more than 25 staff.

2 Learning and Training at work 2000 DfEE. Base 4000 Employers.

Table 5 shows a majority of staff in all sectors, regions and with all sizes of employer see the skill needs of the average employee as increasing.

Table 5: Changing skill needs in average employee (Percentages)

	Increasing	Static	decreasing	Not stated
Size of employer				
1-4	58	36	5	2
5-24	67	28	4	2
25-99	69	25	5	1
100-199	71	24	4	2
200-499	76	21	2	1
500+	84	13	1	2
Industry Sector				
Manufacturing	62	30	5	3
Agriculture, mining, utilities and construction	52	36	8	3
Distribution and consumer services	50	43	5	1
Finance and business services	66	30	3	1
Transport, public administration and other services	73	25	2	1
Government Office Region				
North East	54	36	5	5
North West	63	31	5	1
Yorkshire and the Humber	68	25	3	4
East Midlands	62	29	8	*
West Midlands	56	41	2	2
Eastern	61	34	5	1
London	64	31	3	2
South East	55	39	5	1
South West	59	35	4	2
TOTAL	61	33	4	2

Coverage: all employers

Source LFS Spring 2000, Education and training statistics for the UK 2000 DfEE.

6.8.2 Commentary on patterns of participation in workplace training

Spilsbury's (2001) analysis of the Learning and Training at Work survey highlights that in 2000 24% of employers had not provided any on-the-job or off-the-job training in the last 12 months. On-the-job training is defined as that provided to an employee at their usual work position whilst off-the-job training is defined as that provided away from the immediate work position. By far the most commonly stated reason for not providing formal workplace training was that the existing skills of the organisation's workforce was felt by employers to be sufficient to meet business needs (77%).

Reasons workplace training was not provided by employers (Spilsbury, 2001)

Reason for not providing training:(%)

Existing skills of employees meet our needs so training not needed	77
New recruits are sufficiently skilled to obtain skills required	
/ already have the required skills	9
Lack of finance / cannot afford it	4
Training programme not yet in place	2
Employees too busy to give training	2
Employees learn from experience	2
Other	5

Campbell et al (2001) point out that the highest levels of formal workplace training are received by: employees in higher skilled occupations, those that are well-qualified and younger workers. In respect to occupation the Labour Force Survey (2000/2001) shows that employees within professional (50%), associate professional/technical (42%) and managerial/administrative occupations (28%) are amongst those most likely to have received training in the last 13 weeks. Employees working in plant/machine operative (15%), craft (18%) and other occupations (14%) are least likely to have received training. Moreover, this inequality in training participation is cumulative - those who do not receive it in one year tend also to be excluded in future years (Green, 1999). Not only are unskilled workers less likely to receive formal workplace training, they are often those whose experience of formal schooling has been poor and who are unlikely to access learning outside the workplace on their own initiative (Rainbird, 2000).

The extent to which informal training is undertaken within the workplace is unclear as most surveys focus on the more structured activities that are undertaken as part of formal training. It is also easier to quantify formal training than informal learning, though data referring to 'on the job' training will often incorporate informal training. An examination of job-related training by highest qualification reveals that 43% of employees qualified at NVQ level 4, its equivalent, or above have received training in the 13 weeks prior to the LFS survey. This compares to around 28% of those qualified to NVQ or equivalent levels 2 and 3 and 20% of those qualified to NVQ level 1 or equivalent. Only 10% of those with no qualifications had received any formal workplace training (Campbell et al, 2001).

Older workers are less likely to receive job-related training than younger employees. The LFS shows that, 21% of employees aged 50 or above participated in formal job-related training compared to 31% of those aged 25 to 49 and 38% of those aged between 16 and 24. Participation in training also varies by sector. Establishment size is an important factor in the level and type of workplace training provided (Spilsbury, 2001). Smaller establishments are less likely to provide formal workplace training than larger ones, especially in respect to off-the-job training. The lower incidence of workplace training in smaller establishments may also be partly explained by the generally lower perceived need for training due to infrequent recruitment and/or limited changes in technology or working practices amongst these employers (Johnson, 1999).

Training activities, however, encompass only a fraction of the learning that takes place at work. Stern and Sommerlad (1999) suggest that informal learning, the transmission of 'tacit' knowledge, relating to the transfer of technical know-how, knowledge about markets or customer requirements and other forms of business-related knowledge, are generally seen as more relevant to the needs of small and medium size enterprises than more formal training. Such learning may take place while engaging in normal work activities.

A significant proportion of job-related training is short term. The LFS indicates that 41% of training lasts for less than 1 week. This compares to 11% lasting between 1 week and 6 months, 13% lasting between 6 months to 2 years and 35% lasting 3 years or more. In respect to the number of days of training received, the Learning and Training at Work survey shows that the average number of days training provided over the last 12 months per trainee has decreased slightly from 8.6 in 1999 to 8.2 in 2000 (Campbell et al, 2001).

6.8.3 Regional variations in patterns of participation in workplace training

There are significant regional variations in skills levels. The LFS (2000/2001) shows the proportion of those of working age that have attained NVQ level 3, or its equivalent, and above varies by 10 percentage points, from a high of 47% in London to a low of 37% in the North East. Broadly speaking, on this measure, skill levels are highest in Southern regions, with London, the South East and South West having the highest proportion of individuals that have attained NVQ level 3 and above. Together with the North West (just) skill levels in each of these regions is above the average for England as a whole where 42% of individuals of working age have attained NVQ level 3, or equivalent, and above. Regions falling below the English average include the North East (37%), West Midlands (38%) [note: this is the local region for the purposes of the Participa project and includes the sub-region of Coventry and Warwickshire], East Midlands (39%), Yorkshire and the Humber (39%) and the Eastern region (40%). A similar pattern emerges in respect to regional differences in the proportion of adults achieving level 4, or equivalent. As before, London ranks the highest with 31% of people of working age having attained NVQ level 4, or equivalent, whilst the North East has the lowest proportion at 18% - a difference of 13 percentage points between the highest and lowest attainment levels, with the West Midlands at 20.5%.

Percentage of individuals of working age with NVQ 3+ and NVQ 4+ by
Government Office Region (Source: LFS December 2000 to February 2001)

% attained NVQ level 3 +	% attained NVQ level 4 +	
East Midlands	39.1	20.3
Eastern	40.3	21.7
London	46.7	30.5
North East	36.6	18.3
North West	42.6	22.2
South East	45.8	26.1
South West	44.1	24.8
West Midlands	38.1	20.5
Yorkshire and The Humber	39.2	20.2
England	42.2	23.6

However, what is interesting is that participation in training does not mirror skill distributions. Thus Spilsbury (2001) shows that Yorkshire and the Humberside (with low relative skill levels) has the highest levels of provision of both on-the-job (75%) and off-the-job (48%) training. In contrast, on-the-job training is least likely to be provided by employers in London. The extent of training is generally lower in higher qualification and higher employment regions - the inverse of the case for individuals. This reinforces the point made earlier about the distinction between learning and training. There may be more work-related training in low skilled areas, but there is more work-related learning in high skilled areas. However, much of the latter learning occurs while working in more highly skilled jobs and because of self-directed learning by more highly qualified individuals (who are much more likely to be graduates). This paradox will be considered in greater detail in Section 4.

Provision of training by region, 2000 (Source: Spilsbury 2001 (Tables 21 and 52))

Off-the-job (%)	On-the-job (%)	
London	38	61
South East	39	61
South West	39	61
Eastern	37	66
East Midlands	46	68
West Midlands	37	66
North West	46	73
North East	42	74
Yorkshire & Humber	48	75
Total	41	66

6.8.4 Skills shortages and skill gaps

The main skills shortages are in technical/practical skills; advanced IT skills, customer handling skills, communication skills; and team working skills. They are particularly prevalent in the manufacturing, construction, wholesale/retail, health/social care and,

especially, business services sectors. Their occupational distribution varies markedly by sector though three groups (professional, associate professional and craft occupations) account for more than half of all skill shortages. They are least prevalent in managerial/administrative occupations. Skill shortages affect organisational performance in a range of ways - lost orders, delays in product development, difficulties in providing customer service and so on. The sectors that are most negatively affected are the manufacturing and finance sectors as well as public sector organisations. Certain occupational skill shortages are particularly associated with a negative performance impact - skilled trades, managers and professional occupations (Campbell et al, 2001).

Skill gaps, where skills of the existing workforce are less than those required to perform effectively, are estimated at affecting around 800,000 of those in work, and around 7% of establishments. They disproportionately affect relatively larger establishments: more than a quarter of establishments which employ more than 25 people report the existence of a skills gap. The main skills gaps are in communication skills; non-IT practical/technical skills; team working; customer handling and problem solving skills. IT skill characteristics also feature prominently. They are disproportionately found in manufacturing (which accounts for nearly a quarter of all skill gaps), hospitality, wholesale/retail, financial services and public administration. Their occupational distribution varies considerably across the sectors though the largest gaps overall are in managers, production and process operatives, sales, 'other' manual and administrative/secretarial occupations (Campbell et al, 2001).

Skill gaps affect organisational performances in a range of ways, in particular, with regard to customer service, quality, costs and new working practices. Most sectors are affected and no particular occupational skill gaps appear to have a greater impact than others. One important cause of the existence of a skills gap is, in the first place, a failure to train staff - most often this is due to a lack of time, lack of funding and lack of cover for those being trained. Most organisations consider that the skills of their current workforce are adequate, despite two thirds believing that the skill needs of their employees is increasing. The pattern of training also varies considerably by occupational group. Moreover, training activity is a more common response to skill gaps than skill shortages (Campbell et al, 2001).

There is considerable qualitative evidence to reinforce the fact that skill shortages and skill gaps are highly diverse and specific to particular sectors and groups of the workforce. However, there appears to be a degree of concentration in two occupational groups in particular - associate professional and technical and craft related (Campbell et al, 2001).

There are very considerable regional and local variations in the demand for, and supply of, skills as well as in the extent and nature of skill shortages and skill gaps with the existence of 'skill rich' and 'skill poor' areas. Skill shortages are predominantly concentrated in London and the South East, and to a lesser extent, in the South West and Eastern regions. However, the scale of variations is greater within, than between, regions though there is a general North-South divide apparent with, in particular, a concentration of shortages in areas of most rapid jobs growth. The greatest regional variations in skill gaps are in the South West and West Midlands, but they do vary greatly between areas within (Campbell et al, 2001).

6.9 The use of graduates as technical workers in England

6.9.1 Learning at work

Expectations of employers that new (graduate) employees will engage in self-directed learning at work, with less emphasis upon formal training, but with encouragement to continue their education and training in their own time:

A study by Rajan et al (1997) highlighted, in a survey of 950 small and medium-sized companies in central London, that growing companies were likely to be moving towards a performance-driven business culture, with an emphasis upon empowerment, teamwork, lifelong learning and individuals managing their own careers. These companies were recruiting a significant number of graduates, and the training methods most frequently used with new graduate recruits were learning by doing; coaching by line managers; interacting with suppliers and customers; and through the exercise of significant work responsibilities. These dominant methods make use of mentoring and experiential learning, but in the main “graduates are thrown in at the deep end from the outset; with much of the training coming through learning by doingExcept in professions like accountancy, chartered surveying and law, the learning that occurs is neither accredited nor examined. Even with external courses, the tendency is to send graduates on ad hoc courses that are short and modular. They address the practical needs of the job rather than the qualifications aspirations of the individual. Learning through external courses is actively encouraged, so long as most of it is in the individual's own time” (Rajan et al, 1997, p.24).

The central London labour market may be a special case in some respects, but it would appear that at the heart of the employment relationship is a very different conception of the rights and duties of employers and employees, not least in the area of learning and training. Employers are targeting the employment of inexperienced young people (for example, graduates without appropriate specialist knowledge), and relying upon their willingness and commitment to learning (and to working long hours, if necessary) to become effective in their jobs in a relatively short space of time. After a couple of years the employee has built up work-related experience so that he or she is able to apply for jobs with other firms, who previously would have considered the applicant insufficiently qualified. In such circumstances, particularly for graduates, relevant experience, demonstration of a willingness to learn and the ability to operate as an effective self-directed learner are much more important than formal post-experience, postgraduate or work-related qualifications in getting further career-related employment.

Reflection Point: some small companies actually want to recruit people, who have a capacity to learn but do not necessarily have directly relevant work experience, such as young graduates because they are relatively cheap. Both employer and employees recognise that, for many, this arrangement is likely to be short term, before the graduate moves into what he or she considers to be career-related employment. The emphasis is upon working while learning, and often neither party has much interest in formal training or in the employee getting further formal qualifications at this time. The employee, however, does gain experience that enhances their labour market value.

Facilitating self-directed learning at work:

Expecting new recruits to engage in self-directed learning is a special case, but this form of learning is becoming more important for a range of employees. Self-directed learning at work can have major benefits for employers, but it is somewhat paradoxical that employees may often require support for this form of learning to be effective (Eraut et al, 1998a). That is employees often need support in learning to become more independent within programmes of work-based learning, including learning while working. One role for trainers is to ensure there are opportunities for reflection within such programmes so that individuals become more effective at acquiring methods of self-learning and techniques for individual development (Infelise, 1994). Recognition of personal worth by an influential sponsor or mentor and recognition by your community of peers can also be powerful drivers to individual programmes of self-directed learning. Eraut et al (1998b) in their study on learning at work found many examples of organised but relatively informal learning support through reference to unofficial sponsors,

mentors or 'designated experts', where the support was a function of a personal network of relationships. In such circumstances know who is a kind of knowledge which is becoming increasingly important (Lundvall and Johnson, 1994). This know who refers to a mix of different kinds of skills, in particular the social skills, allowing the access and use of knowledge possessed by someone else, often through a combination of professional and personal networks (Eraut et al, 1998a).

One of the key issues concerning 'facilitating self-directed learning' lies in how to implement it in practice. Fully self-directed learning at work requires individuals not only to learn from work, but also to use their own initiative to find out what they need to know. Eraut et al (1998a) point out that "managers' hopes that employees will be self-directed learners may not be realised if their attitude is perceived as permissive rather than positively supportive" (p. 39). There are dangers then that the possible need for support is overlooked. Coffield (1998) quotes a finding from Ashton (1998) that in certain firms learning was thought to be "unproblematic, a natural process which occurs of its own accord and therefore did not require any special support or consideration" (p. 1). This did, however, sometimes mean that new entrants, especially graduates, received little support: there was a belief that they "learn by being 'thrown in at the deep end'" (Ashton, 1998, p. 67).

Reflection Point: employees often require support in becoming more independent learners at work, and where this is not provided by a formal mentor or trainer, employees will often turn to other 'unofficial mentors or supporters'. Improving mentoring skills could affect organisational performance and one initial way forward would be to set up opportunities for mentors to discuss with others different ways of supporting mentees. From this some mentors may wish to go on to get more formal training and/or qualifications, but setting up opportunities for reflection and learning from others would be the key stage.

Learning from others at work:

Practical examples of a substantive commitment to learning throughout companies though remain hard to find. Eraut et al (1998a) investigated the extent of organised learning support in the development of knowledge and skills in employment of 120 people operating at professional, management, team leader or technician level in 12 organisations. The organised learning support included use of mentoring and coaching; rotations, visits and shadowing; as well as reference to 'designated experts', although very few of the positive examples of learning "resulted from organisation-wide strategies or initiatives. Most were relatively informal and initiated by middle managers, colleagues or the learners themselves" (Eraut et al, 1998a, p. 41). On the other hand, "negative examples where the absence of these kinds of organised support for learning on-the-job left people struggling were too numerous to count" (p. 41).

Those in need of support for learning at work, however, often turn to colleagues. Eraut et al (1998a) highlight the extent to which feedback from colleagues, and consultation and collaboration within working groups can form the basis for substantive learning, including through mutual consultation and support. Additionally, membership of task groups or committees could help people develop new skills, fresh perspectives or deepen their organisational or contextual understanding. Similarly some people at work pointed to the extent to which they could learn from others outside their department, from professional networks or from suppliers and customers. One "major reason for the prevalence of learning from other people was that this [tacit] knowledge was held by individuals rather than embedded in social activities. While some knowledge was firmly embedded in organisational activities, other knowledge was located with a small number of individuals" (Eraut et al, 1998a, p. 48, emphasis in the original).

Reflection Point: learning from others, including through personal networks, is a vital source of learning at work, but this type of activity does not fall within the scope of CVT for the EUROSTAT CVT survey. To fall within the scope of CVT for that purpose would require a greater degree of formality and pre-planning.

Trend for learning and working to move closer together:

One clear trend within workplace learning is the attempt to draw working and learning closer together. In particular, there is an increasing awareness that learning and motivation are influenced if activities are embedded in contexts that make sense and are important for the learner (Raizen, 1994). Although there may also be times it is important for the learners that some distance is put between learning and work, so as to generate breadth of perspective. Indeed Eraut (1994) raises the question of whether successful workplace practice can necessarily be equated with a capacity to understand the ideas and concepts that inform such actions or to transfer them successfully to other contexts. For example, experienced practitioners may be seeking broader perspectives, theoretical understanding and so on. Engeström (1994) also points to the contribution theoretical concepts can make to assist individuals to understand what they are doing and why work practices are subject to change. So while meaning for the learner may often be increased by getting closer to working processes, in other cases putting greater distance between learning and working may be appropriate.

Reflection Point: much of the foregoing has argued for the value of learning while working, but it is also vital to acknowledge that there are other circumstances where it is important for the purposes of learning to put some distance between learning and working.

Links between learning at work and qualifications:

Reflection Point: is it possible to offer institutional support to a system that looks to develop employees in ways considered to be meaningful by the individuals concerned (rather than necessarily fitting the requirements of formal education and training)? In such an approach the formative nature to competence development could mean that the focus is upon where does the individual go from here in the light of the competences they (believe they) possess. This could be an inclusive process open to all, whether or not they want to seek formal qualifications, have their existing competences recognised, or undertake formal education or training. (The point made earlier about the value of 'unofficial' mentors learning more about how to offer effective support to mentees is relevant here. Such an outcome could be the result of a 'review of competences' relevant to the individual and possibly the organisation.) The key point is that the competence review looks forward and focuses upon individual learning and development.

Building a stronger dialogical element into those cases where a link between non-formal learning and formal qualifications is appropriate. Reflective dialogue and evaluation can be used to broaden and deepen learning in the workplace (and in part compensate for the possible narrowness of experience in the work tasks performed by an individual).

6.9.2 Skills supply and demand

Weak demand (and supply of) intermediate level skills:

In the UK Lloyd and Steedman (1999) point out that, despite a polarisation of skills in some areas and some skills shortages, 'there appears to be a weakness in the demand for intermediate level skills across the UK economy reflecting the large numbers of firms that are pursuing relatively low skilled, low quality product market strategies' (p.1). The weak demand for intermediate level skills is combined with very low levels of sup-

ply of these skills: 14% of working population hold intermediate level vocational qualifications compared with 46% in Germany (DfEE, 2000). On the other hand, many more intermediate level jobs are filled by graduates in the UK than elsewhere in (northern) Europe. Graduates in the UK are likely to perform many jobs that are filled by employees with intermediate skills and qualifications in other European countries, particularly Germany and the Netherlands (Lloyd and Steedman, 1999).

Overall then, the UK labour market is structured such that 'there is both a weak demand for intermediate level skills from employers and a weak supply of employees with these skills' (Lloyd and Steedman, 1999, p.3). The key point here is that employers have become adjusted to this, and their product market and human resources strategies may be designed accordingly. This applies both to firms competing in low skilled, low quality product markets and in high skilled sectors. The former largely make use of semi-skilled labour, while the latter often look to use graduates.

Skill needs and levels: alternatives to using intermediate level skills as the basis for a high skills economy:

A wealth of workers with highly developed intermediate skills was long regarded as one of the key ingredients for a high skills economy and throughout the 1980s Germany was held up as a prime example of a system with a high skills equilibrium, in sharp contrast to the low skills equilibrium obtaining in Britain (Finegold and Soskice, 1988). However, the German skills machine faltered in the 1990s and the edited volume by Culpepper and Finegold (1999) reviews the merits and viability of the German model of skills development in the face of technological and organisational change. What is of interest in this context is that there now appears to be a number of ways in which skills can be developed and utilised within a dynamic economy.

Finegold and Wagner (1999) focused their attention upon what was traditionally one of the strengths of the German economy and their approach to skill development: capital goods manufacturing built upon a system of diversified quality production, using the abilities of highly skilled workers and engineers. They point out, however, that this system was essentially based around individual performance. Hence the shift towards the multi-functional team as the basic organisational unit for work performance in lean manufacturing, typical of US practice, posed particular challenges in a German context. These authors, in a study of the pump industry in the US and Germany, confirmed the thesis of Herrigel and Sabel that *"most German assemble-to-order and customized plants had made relatively little use of multi-functional teams, at least in part because the personal identity of German skilled workers appeared to conflict with the blurring of individual roles and narrowing of some technical skill requirements that can accompany the move toward a team-based organization"* (pp. 152-153).

Finegold and Wagner (1999) go on to advocate that, rather than following the US model, German manufacturing companies should develop their own production concepts that "fully utilize the potential of their highly skilled workers and newly-deployed Meisters" (p.155). This has the apparent advantage of reinforcing the importance of career pathways within the firm in ways that build upon the extensive initial training typical of the German VET system. This may be a sensible approach in those industries where competitive advantage can be extracted from knowledge and expertise that mainly resides within individuals strongly associated with particular companies. On the other hand, in more dynamic sectors such as electronics it may be that tacit knowledge is generated and shared at least partly through individuals moving between companies in the industry as occurs in the UK (Mason and Wagner, 2000). This means that the advantages and disadvantages of German and British approaches to skill development and utilisation are much more balanced than they were twenty years ago. The approach that is most effective will vary between contexts and across industries.

Reflection point: diversified quality production, using the abilities of highly skilled workers and engineers, can be built around individual performance and clear occupational pathways, where a company builds up its store of knowledge and expertise. This approach works best in a relatively stable environment where depth of technical knowledge developed over time remains a continuing asset. However, a viable alternative approach may be for (tacit) knowledge to be spread between companies by a comparatively rapid employee churn. Rapid movement of skilled workers between companies used to be perceived as a problem ('poaching'), but in a changed context it could be a strength (as it facilitates rapid 'tacit knowledge sharing'!)

Employers demand for key skills:

Dench, Perryman and Giles (1998) were commissioned by the DfEE to investigate employers' understanding of and need for key skills (communication, application of number, IT, working with others, improving own learning and performance, and problem solving). Employers were asked about their need for the different key skills such as communication skills, use of number, IT skills, team-working, and problem solving, and about the level of skill required for each of these on a four level scale. Demand for the key skills was generally strong only if the skills were specified at the lowest levels. Higher levels of key skills were not required for the bulk of the workforce in the organisations surveyed and interviewed. The need for higher level skills was generally restricted to professional, managerial and higher level technical staff. This structure of demand reflected systems of work organisation and job design that had removed or heavily circumscribed employee discretion.

"The generally low level of autonomy allowed to employees especially in non-managerial roles and in less skilled jobs was a theme emerging from many of our in-depth interviews. Although employers are looking for people who can take responsibility and show independence, in many jobs there are limits to which these can be developed. In many organisations, efficient delivery is seen in terms of employees working in fairly prescribed ways"

(Dench, Perryman and Giles, 1998, p. 58).

The findings of this study are mirrored by other work. Robinson (1997) reports on a Basic Skills Agency survey which looked at the literacy and numeracy standards expected from employees in the six lowest occupational groups in the UK labour market (which in Spring 1997 accounted for 63 per cent of total UK employment). The levels of skills being demanded were extremely limited. Robinson concluded that, *"although a significant proportion of the adult population have modest levels of literacy and numeracy, for a large number of jobs at the middle and lower end of the labour market, this is all that appears to be required by employers"* (1997, p. 25).

As Dench, Perryman and Giles suggest, "there does seem to be some tension....with the rhetoric around the nature of job change and employers' actual needs" (1998,p. 61). Certainly their findings are in stark contrast with the world of leading edge work practices and job design depicted by Guile and Fonda (1998). Once one moves away from the small sample of leading edge employers surveyed by Guile and Fonda, there seem to be few signs that "instead of managers who control the flow of work by managing people who are expected to carry out tasks, organisations increasingly need people who manage, or contribute to managing, a growing range of processes" (Guile and Fonda, 1998, p. 1). Indeed, far from desiring a workforce of self-reliant, self-monitoring, polyvalent, self-developers, Dench, Perryman and Giles conclude that "in reality most employers simply want people to get on with their job, and not to challenge things" (1998, p. 61).

So while there is limited demand for significant upskilling in many jobs, Green et al (1999) do provide evidence of a more gradual upskilling of those in employment between 1992 and 1997. They highlight an increased usage of problem-solving skills, communication and social skills, and computing skills, although a substantial minority of those in work have not benefited from skill rises (Green, 1999; Green et al, 1999). In summary then, a small proportion of jobs have become very much more demanding, many jobs have shown a gradual increase in skills required, while a substantial minority of people in (and out) of the labour market have had minimal skill rises.

Differential access to training of different groups in the labour market:

There is differential access to training of different groups in the labour market: for example, according to employment status, with peripheral workers often getting little access to further education and training (Green et al, 1999). Also given the over-representation of women, black people and migrant workers in the peripheral workforce (Forrester, Payne and Ward, 1995) differential access to VET, including opportunities for informal learning, can act as a reinforcement of social inequality (Onna, 1992). This may lead to the exclusion of older adults from learning (Schuller and Bostyn, 1996); and reproduction of patterns of inequality in terms of who can participate in learning (Macrae et al, 1997; McGivney, 1997; Keep, 1997). Tett (1996) too points to how participants in continuing education and training tend to be under 35, come from skilled or professional backgrounds and have had positive educational experiences, whereas non-participants are older, less skilled and are more likely to have been unemployed. There are also *“questions of take-up relating to gender and ethnicity although here too there are variations within groups by regions ...[so] it is essential for initiatives to be responsive to local variations”* (Edwards et al, 1998, p. 38).

6.9.3 Supply and demand for graduates

Consequences of a shift to a ‘mass’ higher education system:

HE has expanded threefold in the last three decades from a very narrow base, is increasingly diverse, and is committed to widening access to students from a wider range of backgrounds. The UK also has one of the lowest HE non-completion rates in the world. ‘Nationally 80 per cent of starters are projected to obtain a degree eventually... 2 per cent to obtain a different qualification. 18 per cent are expected to discontinue their studies ... In fact, of all the countries with data held on the Organisation for Economic Co-operation and Development database, only Hungary and Japan have lower non-completion rates (Education at a glance, OECD, 1998 p.198)’ (HEFCE, 1999, p.13). In sharp contrast to the limited demand and supply of intermediate skills, there is strong demand and supply of people with graduate skills.

The development of a ‘mass’ HE system has had three significant consequences. First, graduates are increasingly likely to start in a wide range of jobs, and are often prepared to move between jobs to build up experience in the first few years after graduation (Purcell et al, 1999). By this means, they move progressively towards a job that is broadly commensurate with their qualifications. Second, it does mean that employers can recruit academically well qualified people to fill positions in a way that adds value for the employer. For example, Mason (1996) found that graduates recruited to relatively junior positions in banks were more likely to see beyond confines of the immediate task and take opportunities, for instance, for cross-selling of products to customers. Third, Wilson (1995) argues that there is some evidence that when more highly qualified people are recruited the nature of the job to which they are recruited itself changes.

Demand: why employers recruit graduates:

Steedman (1998) argues that employers are willing to pay graduates more because “a highly-educated employee might be expected to learn faster than one with only limited further study experience. In the short and medium term, the higher graduate premium would be more than offset by a saving in learning costs. So we would argue that employers may be interpreting qualifications as signals about learning ability rather than simply about knowledge acquired” (p. 27). This follows the Soskice (1993) line that because of the relative under-development of the intermediate skills base, it makes sense for employers, in a UK context, to recruit graduates. This is because they have generally more highly developed communication skills, a willingness to learn, and other ‘key qualifications’, but without any appropriate specifically vocational training, and therefore this strategy makes more sense than to attempt to develop or secure individuals who had been through initial vocational training. The argument is that graduates can then be given specific training and/or develop their skills through on-the-job training or programmes of learning while working. This would fit with the long-standing belief in the UK in the value of development of skills through the exercise of responsibility, rather than through an organised preparation for responsibility, and is probably typical of the wider UK labour market. This could be a case of making a virtue of the unwillingness of some employers to commit resources to training and development. Recent evidence suggests that some employers are reaching a more or less formal understanding with new recruits that the individual not only has to learn on the job, but also that how and what is learned will be largely up to the individual. This approach is, however, not just being adopted by small companies with limited resources (Vickerstaff, 1992), it is being used as an act of policy, clothed in ideas of empowerment and self-directed learning.

The study by Rajan et al (1997), highlighted earlier, that employers when recruiting emphasised empowerment, teamwork, lifelong learning and individuals managing their own careers. Graduates were “reckoned to have intellectual and behavioural traits more in tune with the main elements of the new culture” (Rajan et al, 1997, p.13), and as a consequence “*the growing companies in our sample have been recruiting a significant number of graduates in recent years in nearly three out of every five companies in our sample, more than 20 per cent of the workforce have graduate qualifications*” (Rajan et al, 1997, p.13). The training methods most frequently used with new graduate recruits were learning by doing; coaching by line managers; interacting with suppliers and customers; and through the exercise of significant work responsibilities.

Rajan et al (1997) also point out recruitment of graduates meant that the companies often had to do little formal training, as the graduate recruits were expected to learn through the exercise of significant work responsibilities. While the central London labour market may be a special case in some respects, the development of skills through the exercise of responsibility, rather than through an organised preparation for responsibility, is probably typical of the wider UK labour market (Evans and Heinz, 1994). Indeed the employment of inexperienced ‘over-qualified’ young people (for example, graduates without appropriate specialist knowledge) could mean that they are over-qualified by educational level in relation to the specific job requirements, but simultaneously under-qualified in terms of their experience.

Technical graduates with well developed inter-personal and communication abilities are in high demand. Hence many companies seek to increase their chances of being successful in recruitment by offering entry into a graduate development programme, whereby such graduates would only be expected to spend a couple of years working at intermediate level employment, before moving into a more specialised technical or managerial role.

Some employers have high expectations of graduates:

'In the area of high-level skills, changes in markets and work organisation now cause engineering employers to have much higher expectations of graduates than were typically applied to earlier generations' (Mason, 1999, p.27). High levels of communications and inter-personal skills are now increasingly required of engineering graduates. Mason (1999) reports that graduate engineering recruitment difficulties were most likely to relate to 'perceived shortcomings in the quality of graduates (for example, their lack of work experience and apparent weaknesses in communication skills than any shortfall in their quantity' (Mason, 1999, p.27, emphasis in the original). The most obvious way forward in such circumstances is to seek to strengthen further the links between education, training and employment in order to try to ensure that technical skills and knowledge are developed outwith generic skills. For example, the Aerospace industry supports work-based learning, linking work and higher education, through the provision of graduate apprenticeships.

The continuing shift from manufacturing to knowledge-based services favours employment of the highly qualified:

The use of graduate labour, labour market flexibility and informal processes of knowledge transfer can lead to innovation and dynamic performance in newer high-technology industries in the UK. The superior economic performance of German companies in traditional manufacturing sectors, such as engineering and chemicals, contrasts with the less impressive performance in high technology industries such as electronics (Mason and Wagner, 2000). The formal structures and institutional support that have been so successful in supporting traditional manufacturing in Germany appear less suitable for high technology industries. Mason and Wagner (2000) go on to point out that the reverse is true for the UK, where trade and innovation performance is much stronger in fast changing areas like electronics rather than in traditional manufacturing industries like chemicals and engineering.

Mason and Wagner (2000) argue that the high degree of individual mobility of highly-qualified scientists and engineers helps to spread tacit knowledge and experience and to develop collaborative research links between enterprises. In a highly dynamic environment, the exercise of responsibility at work, the experience of changing contexts and working with others on challenging tasks all lead to significant non-formal learning. Getting young graduates quickly into the labour market, and moving them through a succession of jobs early in their career, means they are likely to be more mobile, flexible and experienced than those following a lengthier period of initial training and service with a single company. The driver of the first system (the UK model) is learning through work, whereas the driver of the second (the German model) is preparation for work.

Graduates are more likely to receive on the job training:

Green (2000) highlights how at the individual level, a range of economic evidence points to a positive relationship between higher levels of education and earnings:

"This relationship may be explained by education increasing the ability of individuals to respond to new opportunities in a changing labour market, and/or the use of qualifications by employers as screening devices during the recruitment process. Moreover, the benefits of education and training are cumulative. Individuals with higher prior qualification levels are more likely to engage in learning activities at their own discretion and to receive further training while in work. For example, in winter 1998 over 18 per cent of employees with prior experience of higher education had received employer-funded job-related training in the previous four weeks, compared with less than 3 per cent of employees with no qualifications"(p. 1).

Graduate supply:

Graduates usually find career-related employment within three years of graduation:

These arguments may go some way in explaining the patterns of usage of graduate skills by employers, whereby Felstead et al (1999) found that three out of ten graduates were in jobs for which a degree was not an entry requirement. However, following Purcell et al (1999) and Wilson (1995), many of these apparently over-qualified graduates were likely to end up in jobs broadly commensurate with their abilities, through changing jobs or through the jobs themselves changing. The market for graduates, including those from vocational areas, has been at least partly transformed by significant changes to graduate supply.

The vast majority of graduates get jobs within a year of leaving HE, and even allowing for some graduates taking temporary work, within three years most graduates are in what they regard as career-related employment (Elias et al, 1999). These authors also point out that while 10 per cent of graduates are in 'non-graduate' jobs three and a half years after graduation, this proportion continues to fall. Hence, at an individual level, any serious under-utilisation of graduate level skills is likely to be temporary. On the other hand, that so many graduates are involved in the slow but steady process of integration into the labour market each year creates an impression of significant under-utilisation. There may be an important cultural difference here too. That many UK graduates are relatively under-qualified compared to, say, German graduates, after spending less time in HE, also means that 'graduate' jobs (those requiring the use of graduate level skills, knowledge and understanding) in the UK start lower in the employment hierarchy. For example, most associate professional jobs are now filled by graduates.

Graduate prospects:

Only about 3 to 4 % of new graduates under the age of 40 are unemployed 18 months after graduation (and up to 10% of those aged 40 or over) (Purcell et al, 1999). After three years the unemployment rates fall still further and unemployment as a serious problem, rather than as a temporary state between changing jobs, affects less than 2% of the cohort. Further only 10% of the cohort regard themselves at that stage as in non-graduate jobs (Elias et al, 1999). Management, teaching and research, and professional occupations were the most popular areas of job applications of prospective graduates (Pitcher and Purcell, 1996). Eighteen months after graduation most graduates were working as professionals, associate professionals or managers, with smaller proportions in clerical/secretarial, sales/marketing or personal services (Purcell et al, 1999). The major sectors in which these relatively new graduates found work were in consumer services, business services, banking and finance and transport and communication (Purcell et al, 1999). Relatively fewer graduates were found in education, other public services, manufacturing, construction, primary industries and utilities and other sectors (Purcell et al, 1999).

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Alan Brown, Phillip Grollmann, Roland Tutschner

Final Remarks

The continuous updating of all the areas of human activity are, nowadays, an essential condition for each country and region to be able to face the new challenges placed by both the globalisation of economic activities and the accelerated rhythm of scientific and technological advances witnessed today. In fact, education and training systems, especially continuing adult education and training in a lifelong learning perspective, have to be improved if the European Union is not only to increase its competitiveness in the context of an increasingly globalised economy but also to improve quality of life for their citizens. There are obvious differences between the countries surveyed relating, not only to their continuous education and training systems and way of understanding lifelong learning, but also in respect of the patterning of adults' participation in continuous education and training.

In this State of the Art Report we have analysed different aspects and perspectives about adults' education and participation in Continuing Vocational Education and Training (CVET). Understanding factors influencing participation of adults engaged in training is very relevant for designing and implementing strategies for organising continuing education systems aimed at adapting training offers to training demands for continuing qualification of professionals. This is necessary because understanding how and why (and why not) adults participate in educational activities facilitates setting up and implementing effective strategies to promote continuing education programmes to satisfy the training needs of individuals and organisations. Considerable attention too has recently been given to issues of skill development and participation in more broadly defined continuing vocational education, training and learning activities.

In England, increased participation in continuing vocational education and training can be tracked fairly easily but most learning and development that takes place in the workplace does not involve formal training, nor is it accredited. Therefore much skill development of the workforce is not reflected in increases in participation nor in the acquisition of qualifications, although formally participation in job related continuing education and training is high, relative to other OECD countries. On the other hand, the average actual number of hours of training that each person undertook was the second lowest. In Germany research has shown that participation is not an individual, 'voluntaristic' decision but a process, where there are different actors involved, especially in the case of technical workers. In Italy evidence presented in this report suggests that the region of Lazio has created a system of 'skills audit' that can evaluate the appropriateness of a worker's individual training path. The instrument used for this purpose, the 'Evaluation of vocational skills and guidance to training', allows workers to identify their own training path in accordance with their personal growth requirements. Another interesting aspect is the creation of a regional catalogue of training supply which workers can use to choose the most appropriate courses and other training initiatives, although the catalogue does not constrict them in their choice of training actions.

In Portugal, provisional findings suggest situational factors and individual's attitudes are the most influential characteristics on the participation of adults in continuing training offerings. Also in the Portuguese case, skill and knowledge acquisition by workers through participation in continuing training offerings is not very well accepted by most of small business managers in the Alentejo region. The reason for this is because most small business managers do not consider labour training as an effective business strategy to deal with the increased market competition. As a consequence, from a management perspective, they are not prepared to do use training as a means either to

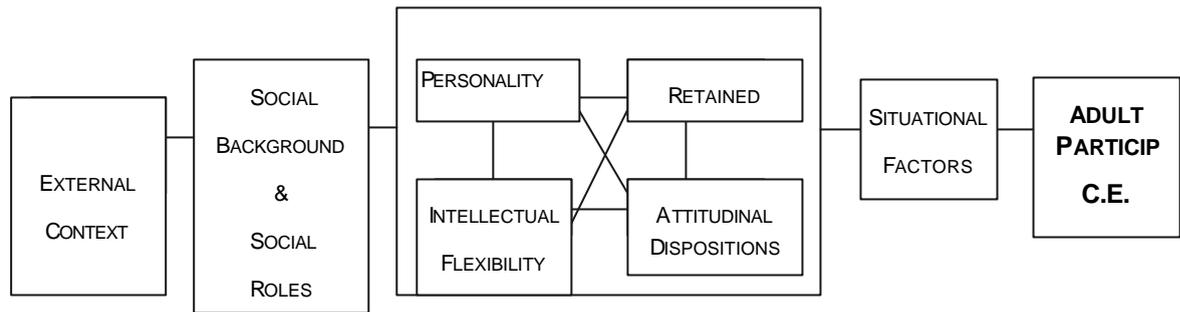
increase employees' responsibility and autonomy over their workplaces or to improve relationships between management and employees (Hodson, R., Hooks, G. e Rieble, S., 1994). For this reason, public training institutions should implement strategies to demonstrate the importance of training for professional and company development. They also should implement strategies focusing on the need for training of quality. Companies should make efforts not only to reduce participation barriers but also to implement incentive strategies emphasising the role of training for job performance. In Spain, these type of arguments have been increasingly visible in recent years. However, there remains a considerable gap between the rhetoric exhorting companies to train and the extent to which organisations actually engage in substantive continuing education and training activities in practice.

This state of the art report has allowed us to understand the differences between the six countries that compose the project's partnership in how they perceive lifelong learning and what they regard as the most pressing issues in relation to adults' participation in continuous vocational education, training and learning activities. However, beyond the context of adult participation in work-related learning and training activities in individual countries there is a European dimension. For example, a critical issue for sustainable socio-economic development of all regions of Europe is the ability to ensure that those who are already in employment continue to have the skills and qualifications that are required for continuous changes in the workplace. Hence European policy-makers have an interest in the extent to which adequate and effective continuing vocational education and training policies are designed, developed and implemented in different contexts and settings.

From this perspective it is interesting to note that the differences in industrial structure mean that the regions in the countries involved in this project pose two sets of very different challenges. The proliferation of relatively small companies in the sectors chosen in Greece, Portugal and the Extramadura region in Spain mean that there is a significant public policy role in the promotion of training. In contrast, in the more industrial districts of Germany, Italy and the UK covered in this project there a range of economic, technological and organisational drivers that mean that even many small to medium size companies pay attention to the development of employee learning. This means that although both groups are able to analyse the structural, organisational, and individual factors that influence employees' decisions to participate in continuing vocational education and training, the balance between these different factors vary considerably between the two sets of countries. From a European perspective, therefore, these represent more or less the two ends of a spectrum of ways in which it is possible to consider how best to support the learning of employees using technical skills in industrial small and medium enterprises. Overall then, while there will be variation in the attitudes of individual employees towards their participation in continuing vocational education and training, there will also be very different configurations of opportunities for continuing vocational education, training and learning in the different settings.

These different types of settings present very different challenges for thinking about continuing vocational education and training provision. The Participa project is therefore investigating the extent to which the ISSTAL model can be used for framing employees' participation in continuing vocational education and training. The dimensions appear to be related to participation in continuing education offerings and could perhaps also be used to cover engagement in informal learning processes. The model itself is reproduced below and it is worth making the point that the strength or immediacy of influences on participation.

Model of adult participation in continuing education



Less relevance

More relevance

Note: Adapted by Cookson (1986) from Smith's ISSTAL model (1980).

The way forward for the Participa project is to investigate key issues that will lead to:

- Understanding the factors influencing individuals' decisions to participate in continuing VET offerings and to engage in informal learning processes;
- Assessing and characterising attitudes of employees using technical skills towards participation in Continuing VET programmes and engagement in informal learning processes.
- The challenges for the project are to carry out these investigations in settings where the initial conclusions of the project are as follows:
 - In contexts where technical work itself is challenging, then most continuing vocational learning takes place outside formal training programmes.
 - There is a need for employees not only to update their technical skills but also to develop further a range of more generic skills, including planning, problem solving, communication, IT and management skills.
 - Learning to become more self-directed in your approach to learning has become more significant. Learning how to support the learning of others is also important for the promotion of lifelong learning.
 - Learning how to organise knowledge effectively and applying it appropriately is vital for technical workers development.

That situational factors and individuals' attitudes towards continuing vocational education and training are the most influential characteristics on participation in continuing training offerings in some settings.

The initial work of the project is already generating ideas on recommendations for CVET policy and practice. These are:

- The focus of strategies for skill development should be upon continuing vocational education, training and learning, rather than just upon participation in CVET per se.
- Greater attention should be given to helping employees become more effective in supporting the learning of others at work.
- There is a need to focus upon the development of hybrid skills rather than just technical skills development. Hybrid skills refer to the ability of people to harness technical skills in support of business development.
- Encouraging the spread and sharing of tacit knowledge, through a combination of individual mobility and formal and informal networks, will increase the competitiveness of companies in particular districts or sectors.

- Public training institutions should implement policies to promote continuing training for professional and company development. In particular, a policy for self-learning through e-learning strategies should be developed and implemented.
- Policies to promote and ensure quality in continuing training in small and medium industrial enterprises should be developed and implemented. Incentives for training of quality should be integrated into policies.
- Policies should integrate measures to make employers and managers aware of the need to promote continuing vocational education and training for technical workers. In particular, policies should include measures to encourage companies to develop strategies not only to reduce participation barriers (situational factors and individual attitudes, mainly) but also to implement incentives emphasising the role of training in improving job performance.