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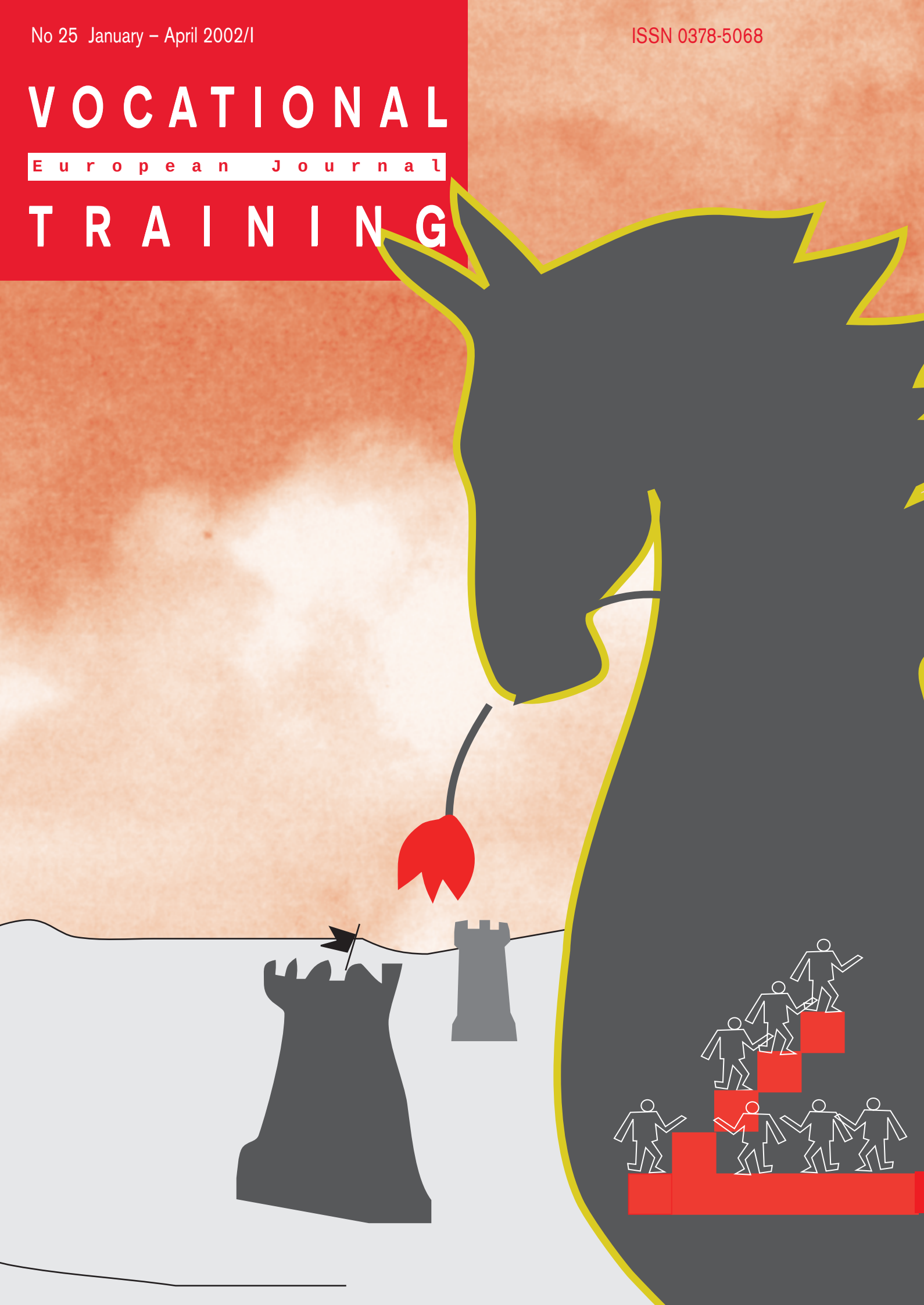

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Cedefop assists the European Commission in encouraging, at Community level, the promotion and development of vocational education and training, through exchanges of information and the comparison of experience on issues of common interest to the Member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

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

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

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

The opinions expressed by the authors do not necessarily reflect the position of Cedefop. The *European Vocational Training Journal* gives protagonists the opportunity to present analyses and various, at times, contradictory points of view. The Journal wishes to contribute to critical debate on the future of vocational training at a European level.

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Reading

Ettore Gelpi

Citizen of the world, international educationalist, human rights advocate and modern anarchist. In grateful acknowledgement

Norbert Wollschläger
Cedefop

It was sometime in the mid-1970s that our paths first crossed. Ettore Gelpi, a constitutional lawyer by training and educationalist by conviction, was responsible for Lifelong Education at UNESCO in Paris. Author of innumerable publications whose preferred languages were Italian, English, French, Spanish and Portuguese. An indefatigable fighter for social reform and equality of educational opportunity. We at Cedefop, at that time still based in Berlin, who had the good fortune to work with him acquired particular respect for Ettore. He was a man you could rely on. He helped with professional advice whenever he could, never refused an invitation to a conference or seminar. If you asked him to write an article he never refused, never asking for a fee. And he kept to deadlines. He was not only a colleague but a good friend as well. And, like us, convinced of the political and social importance of our work.

Then, somehow, we lost touch with one another. Not just because Cedefop moved to Thessaloniki. The focus of our research shifted too. Priorities changed, new cooperative alliances were formed. Former contacts faded, friendships were neglected. As happens in international organisations. Every so often one read Ettore's name on a list of speakers at an important conference or came across a new book or article by him.

But I only really thought of him when I was searching for a keynote speaker for the April Agora meeting. The subject was to be the relationship between general education and vocational training, the latter's persistently poor image in present-day society and what changes needed to be made. A subject of fierce debate central to education policy and the driver for a variety of efforts to reform education and training all over Europe. The President of the German teachers' union, borrowing from Friedrich Engels, had formulated the problem very much to the point in the late sixties: 'The professional training of the ruling class it their general education; the general education of the ruled class is their vocational training'. And the question now was what had changed since.

I soon found Ettore's private address in the Paris phone book and he answered at the first ring, speaking as I remembered him, in French with the same unmistakable Italian accent. A brief pause, then 'Norbert who? Of course, Cedefop. I remember. How long ago was it? How are you? Where are you?' A cordial reunion by telephone. My request was soon made and the subject outlined, the old alliance immediately restored. He was quick to agree. Yes, he found the subject very interesting indeed. He would prepare a paper. Ciao, see you soon.

Ettore kept his word. The paper was e-mailed to us a few days later. His secretary passed on the message that he had worked on the paper with great enthusiasm but unfortunately would not be able to attend the Agora for health reasons. I wanted to suggest that we set up a

videoconference link between Paris and Thessaloniki so that he could be present at least virtually and give his paper. But I didn't know how ill he really was. And had been for some time.

My letter of thanks to him came too late. Which is why I want to take this opportunity to say publicly 'Un très grand merci, cher ami, au nom de nous tous, et pour tout ton engagement.'

Ettore Gelpi died in Paris, aged 69, on 22 March 2002 after a long period of suffering. Two days after completing his last paper.

* * *

The editorial committee has agreed to publish Ettore Gelpi's thoughts on the relationship between general education and vocational training in this issue.

New paradigms for training and communication

Ettore Gelpi
1933 – 2002

Keynote speech for the AGORA on: The Image and Standing of Vocational Education and Training: What changes are needed? Thessaloniki, Greece, 29-30 April 2002

The ruling caste of Athens trained themselves to rule through philosophy, the art of oratory and pleading in the Agora. This was vocational training but at the same time a subtle form of general education that enabled them to gain power and retain it.

The plebeian population was trained for more or less noble activities such as trade or the education of youth in the interests of survival. This training, again, included elements of general education.

The lines of demarcation between general education and vocational training, therefore, are not always clear. What is clear is the purpose and result of such training. It is unfortunate that in vocational training courses there is little talk of purpose or philosophy but only of method.

Present-day disasters and crises ranging from the destruction of the World Trade Centre to the sharp rise in unemployment - the figures for which have for years been subjected to window-dressing by means of doubtful curative measures – lead to reactions which see the answer to wider-ranging problems only in military action. Apparently ungovernable countries such as Argentina and major corporate and union crises raise questions concerning the education systems in the countries concerned.

We must avoid laying all responsibility for a world that does not seem to be functioning at the door of the education system, but we should also not underestimate its role. Europeans who admire the education system of the early seventies tend to forget that this was a time of economic euphoria in Europe, a time when theoreticians and practitioners alike were allowed plenty of scope for developing links between general education and specific vocational training.

In my view the change of course was triggered by what we now refer to as the oil crisis, coupled with the upsurge of fierce competition world-wide that came with increasing globalisation, a gradual erosion of the strength of the unions (now less able to defend general education for workers, which was regarded as a luxury in periods of crisis) and also, as I shall be discussing today, the abandonment of training of experts on general education.

Growing disregard for general education

I was at the receiving end of this growing lack of interest in general education: certain people insisted that it was simply not as important to workers' vocational training as it was to the training of more senior staff. Newly emerging management and training experts, basing themselves on the formidable corpus of literature on the subject, began to talk of vocational training simply as a means of enhancing people's working efficiency and often as an incentive to change jobs after a very short time.

Trainers with a rich cultural past were transformed into executors of an alien mentality that often did not reflect the interests of either workers or employers. It was only with certain comrades that we retained a scientific approach, maintain-

ing close relations not with ideologues but with people seriously concerned about their firms and their unions.

Organisations marketing new types of training multiplied, as did the costs involved, while results steadily declined.

I have taken the opportunity offered by this colloquium to tell you these things because otherwise we shall continue to pursue the useless course of window-dressing. Never before have public authorities, industry and commerce and society at large been so in need of men and women imbued with culture in order to cope with the major changes affecting them. As for science and technology, they form part of this culture so long as they do not become 'totalitarian' but keep their proper place. However - and this is the basis of my hypothesis - this historical struggle is not an easy one. If we want training to help meet society's needs we must also seek out and train researchers, teachers and administrators capable of saying no to the pressures and oppression exerted by power structures. These are the structures, both national and international, which impose the technical training that in effect is killing off education.

The training of men and women who work in education in the broad sense of the word is fundamental, as is training for researchers in the field. It is important that we resist an underlying prostitution whose results are becoming manifest. Creating a new momentum for training certainly does not lead to the division of workers into specific occupational categories. A researcher is just as much in need of training in philosophy as is a senior employee. Mathematics is as important for the unskilled worker as for the engineer.

An educational project of this kind will lend a new impetus to education; its progress will remain blocked if efforts are limited simply to tinkering with structures and legislation.

My friends at Cedefop have asked me, after a break of 20 years, to contribute once more to reflection on this issue. My friends in Kameoka have honoured me with an award for having contributed for 20 years to the development of Japanese educational thinking on the subject of lifelong education, seen as incorporating a strong cultural component and self-directed learning.

In the Ettore Gelpi ([1]) chapter, C. Griffin stresses the way in which training, education and culture are related. Everything occurs simultaneously. The crisis is a serious one and we continue to search for other causes. As to my own struggle, which is now behind me, it is today recognised because I never fought it alone. I fought it alongside independent groups, which have steadfastly supported the ideas they live by, never yielding to the pressures of various forms of corruption which have manipulated education and vocational training for 30 years. A company employee, a migrant worker who undergoes training in order to survive in his new country, a woman who fights to gain a job and keep it, and a young apprentice who is not satisfied with receiving a low wage at the end of the month, are all well aware of the value of a general education in building their future so as not to be 'squeezed until the pips squeak'. I know them and I have mixed with them. We have discussed things together. Often it is they who are the true researchers. I urge those present today to consult with them, not with a demagogic attitude but with a willingness to learn, with interest and with love.

At times I have faced not only institutions stage-managed by those who paid the bills, or make a semblance of doing so, but also with unions experiencing the direct or indirect pressures of national and international government organisations. The fact that these conflicts were amicable did nothing to make them easier.

It may be that I get too angry with my colleagues - researchers, teachers and administrators - in the training field because they understand how power is exercised, and because they used to want to fight to forge links between general education and vocational training and thus to achieve educational democracy. I have suffered many disappointments and still do, but continue to believe that as a worker who has devoted many years to the world of education, it is not just my right but my duty to oppose such manipulations.

([1]) P. Jarvis (coord.). 20th Century Thinkers in Adult and Continuing Education, 2nd edition, p.274-288

I would be very glad to see training bodies, reviews and seminars researching and dealing with this subject together with those who are the authors of this education. It is clear that when in talking of culture we must associate ourselves with those who are interested in general and cultural education. By the same token, I find it indecent that more and more people talk about work without knowing anything about it.

You have invited me here to take part in a renewal. But if you only want someone to make a critical analysis of all the texts on continuing training that have been published you have chosen the wrong man. Within 30 years cultural militants have turned into manager clones, believing that knowing and dealing with technology would relieve them of the task of continually adding depth to their own store of cultural knowledge.

Changes in education and in education systems

Jean Vincens
Professor Emeritus, University of Social Sciences, Toulouse (Université de Sciences Sociales de Toulouse)

After presenting the main features of the way in which the qualification structure has changed in the five European Union countries - Germany, Spain, France, Italy and the United Kingdom - the article shows that there is no single model of educational development and explains the diversity found to exist on the basis of relationship between education and economic development. In fact the observed expansion of education has been influenced by two sets of relationships: those between educational supply and demand, and those between the supply of skills and demand for skills in the labour market. Moreover, the weight of the past is decisive in that the more education expands, the more heterogeneous education systems become, since each country brings to the problems facing all a specific solution which is heavily influenced by its political traditions and the arrangement of its social relationships.

This article is based on a joint research project, EDEX (Educational Expansion and Labour Market), funded by the European Community[1].

The general aim of the research was to examine the characteristics and consequences of the huge rise in the numbers of workers with higher education qualifications over the last 40 years in five European countries: France, Germany, Italy, Spain and the United Kingdom.

Stage 1 (Work Package 1 = WP1) was directed by Hilary Steedman and the author of this article. It was completed during the year 2000.

The article makes use of the results presented in the final report (Steedman and Vincens 2000), but it is not merely a summary. It seeks to expand the joint discussion presented in that report by focusing on the results which appear to be the most novel, and provides further interpretation of the data, which is only touched on in the final report itself.

One of the peculiarities of the methodology of the EDEX project was that it adopted a 'generational' approach. Earlier work conducted by the same teams, thanks to Cedefop funding (Mallet et al. 1997), had suggested that most tertiary qualifications were acquired by young people and that the rise in the level of education of the population was thus a result of demography:

❑ the level of education reached at around 30 years of age by a given cohort changes little thereafter. There are exceptions, but the conclusion is generally valid;

❑ the consequence is that the rise in the general level of education occurs as age groups advance, each generation being better qualified that the last;

❑ this feature of the process of acquisition of tertiary qualifications makes it possible to trace the evolution of the level of education simply by comparing the qualification structures of the various generations that make up the population at any given date;

❑ this approach, founded on observation of successive cohorts, also means that education systems can be looked at in a new way, by following up a cohort which enters school on a given date and passes through the education system, split between the various tracks of which the system is composed at the time. The alteration in this pattern over time results both from differences in the take-up of unchanged courses, and from changes in the courses offered. This method, called the 'education systems graph method', as modified by B. Fourcade of LIRHE, has proved very fruitful (Béduwé and Fourcade 2000).

Part 1 of the article presents the main features of the way in which the qualification structure has changed in the five countries. Part 2 attempts to identify the main causes of the expansion of education. Lastly, Part 3 seeks to pinpoint the similarities and differences in developments between the five countries.

(1) This project brings together the following teams:
- Université des Sciences Sociales de Toulouse, Laboratoire Interdisciplinaire de Recherches sur les Ressources Humaines et l'Emploi (LIRHE)
- Universitat autonoma de Barcelona (UAB) Grup de Recerca Educacio i Treball (GRET)
- London School of Economics (LSE)
- Centre for Economic Performance (CEP)
- Zentrum für Sozialforschung Halle (ZSH)
- Centro di Recherche Economiche e Sociali (CERES) Roma
- Centre for Research on Innovation and Society (CRIS) Berlin & Santa Barbara

Table 1.

The qualifications structure of four cohorts

Born 1940	Germany	UK	France	Italy	Spain
1a Unqualified	9	39	28	56	32
1b Compuls. ed.	24	-	27	-	57
2 Lower sec.	1	9	6	23	-
3 Voc. training	51	34	20	3	3
4 Upper sec.	-	3	7	12	2
5 Higher ed.	14	16	12	5	6
Born 1950	**Germany**	**UK**	**France**	**Italy**	**Spain**
1a	8	24	18	31	12
1b	14	-	18	-	63
2	2	12	7	34	-
3	53	38	30	5	5
4	-	4	10	20	8
5	21	22	17	10	13
Born 1960	**Germany**	**UK**	**France**	**Italy**	**Spain**
1a	9	16	23	10	4
1b	11	-	4	-	54
2	3	23	9	43	-
3	56	30	31	7	14
4	-	7	12	30	12
5	22	25	21	10	16
Born 1970	**Germany**	**UK**	**France**	**Italy**	**Spain**
1a	8	11	17	6	2
1b	9	-	1	-	38
2	3	23	4	41	-
3	58	31	30	7	20
4	-	9	16	39	18
5	20	26	32	7	23

* 1999 Labour Force Survey, therefore aged 29

Part 1: The pattern of development

1. Data

Table 1 compares the cohorts born in 1940, 1950, 1960 and 1970, using simplified terminology proposed by Hilary Steedman and employed in the EDEX report. The categories are as follows:

1a. Unqualified. In the United Kingdom, no qualifications; in France, *sans diplôme*; in Italy, certificate of *scuola primaria* or without qualifications (not separated in the data); in Germany, without *Schulabschluss* or no reply; in Spain *sense estudis*;

1b. Completed compulsory education and certificate of primary education. In France, *certificats d'études primaires*; in Spain, *primaris*; in Germany, *Hauptschulabschluss*;

2. Certificate of lower secondary education. In the UK, O Levels, CSE and GCSE; in France, BEPC; in Germany, *Realschulabschluss*; in Italy, certificate of *scuola media*; in Spain, *bachillerato elemental* and second cycle of EGB (basic education).

3. Vocational training certificate. In the UK, 'others' – trade apprenticeship, City & Guilds, ONC/OND, NVQ levels 2/3; in France, CAP/BEP; in Germany, apprenticeship and BFS; in Italy, certificate of *scuola professionale*; in Spain, FP.

4. Certificate of higher secondary education (general, technological or vocational, giving access to higher education). In the UK, A Levels; in Germany, *Abitur* and *Fachhochschulreife*; in France, various *baccalauréats*; in Italy, *maturità*, certificates of *magisterio* and *scuola tecnica*; in Spain, *bachillerato superior*, BUP and COU.

5. Higher education. In the UK, 'degrees', HNC/HND, teaching and nursing qualifications; in France, *licences* and above, *diplômes de Bac+2*; in Germany, university *Diplome*, vocational *Meister* and technician qualifications; in Italy, university degrees; in Spain, short and long university degrees.

Like any scheme of terminology, this has its shortcomings. Category 2, in particular, has changed direction over the course of time in several countries: in France, the UK and Italy, these qualifications have become certificates gained at the end of compulsory education; this will be taken into account in the analysis that follows.

From the most recent National Labour Force Surveys, Table 1 shows the qualifications structure of four cohorts of the total population. The cohort born in 1940

was aged 60 in 2000 and was partly outside the workforce. The cohort born in 1970 was aged 30 in 2000 and had just acquired the basic qualifications which will be typical of it throughout life.

❑ The 1940 cohort was aged 20 in 1960 and was therefore essentially in the education system in the 1950s, and since most qualifications are acquired during initial education, the qualifications structure of this cohort, measured in 1998, gives a good approximation of the 'productivity' of education systems in the 1950s. Similarly, the 1950 cohort was aged 20 in 1970, and its qualifications structure reflects the productivity of education systems in the 1960s, and so on.

❑ We can assume that Levels 1a, 1b and 2 correspond to compulsory education. Table 1 shows a clear break between Levels 1b and 2: where Level 1b is numerically strong, Level 2 is weak, and vice versa. The main exception is France, in respect of the 1940 and 1950 cohorts: the qualification obtained at the end of lower secondary education required school attendance beyond the end of compulsory education, so that the *certificat d'études primaires* (Level 1b) lost its significance and the lower secondary certificate (*brevet d'études du premier cycle*) became in effect the first qualification that could be obtained. A slightly different arrangement applied in the UK In Italy, the *licenza media inferiore* is in effect the certificate of primary education.

Levels 3, 4 and 5 thus correspond to post-compulsory education. The level of education has risen in two ways: (i) through extension of the period of compulsory education and a fall in the proportion of those leaving without qualifications, and (ii) through the expansion of post-compulsory education. The second of these processes has been of great significance, as is evident from Table 2. In order to show up the differences between periods and countries, this table gives the cumulative percentages of levels of education for each cohort, starting with higher education qualifications (Level 5 of the scheme). This makes it possible to measure the proportion of the cohort whose level of education is higher than that obtained at the end of compulsory education.

Table 2.

Qualifications obtained after compulsory education. Cumulative percentages.

Born 1940	**Germany**	**UK**	**France**	**Italy**	**Spain**
5	14	16	12	5	6
5+4	14	19	19	17	8
5+4+3	65	53	39	20	11
Born 1950	**Germany**	**UK**	**France**	**Italy**	**Spain**
5	21	22	17	10	13
5+4	21	26	27	30	21
5+4+3	74	64	57	35	26
Born 1960	**Germany**	**UK**	**France**	**Italy**	**Spain**
5	22	25	21	10	16
5+4	25*	32	33	40	28
5+4+3	78	62	64	47	42
Born 1970	**Germany**	**UK**	**France**	**Italy**	**Spain**
5	20	26	32	7	22
5+4	27*	35	48	46	41
5+4+3	78	66	78	53	61

*The total of 4+5 has been corrected and includes holders of the *Abitur* who also have an apprenticeship qualification acquired after obtaining the *Abitur*.

Level 4 corresponds to the qualification permitting entry into higher education, and Level 3 corresponds to 'short' vocational training courses for manual and white-collar workers.

2. Commentary

1) Let us begin by examining the situation of the 1940 cohort. At Level 5, three countries stand out – the UK, France and Germany – while the others lag behind. When Levels 5 and 4 are taken together, Italy joins the leading three, while Spain remains lower. In the case of Levels 5+4+3 combined, Germany and the UK are clearly ahead, followed by France.

The 1940 cohort started its education at the end of the Second World War. Education was compulsory until the age of 13 years in Spain, 14 years in Germany, Italy and France, and 15 years in the UK. Less than 20% of the cohort remained after that

Table 3.

Proportion of Levels 4 and 5 combined within the sub-total 5+4+3

	Germany	UK	France	Italy	Spain
Born 1940	0.22	0.36	0.49	0.85	0.73
Born 1950	0.28	0.41	0.47	0.86	0.81
Born 1960	0.32*	0.52	0.52	0.85	0.67
Born 1970	0.35*	0.53	0.62	0.87	0.78

*The total of 4+5 has been corrected as indicated above.

age in general education leading to intermediate technical education or, more particularly, to higher education. A large proportion of each cohort was destined to work as skilled manual and white-collar workers, who might receive formal certificated training or informal training on the job. That situation is reflected in the data.

Germany provided formal training for two thirds of the cohort, and vocational training was particularly well developed. The United Kingdom also provided vocational training on a large scale, although not approaching that of Germany. France occupied an intermediate position in respect of Level 3 vocational training, while this type of training was not well developed in Italy and Spain. That means that in these two countries, and to a lesser extent in France and the United Kingdom, uncertificated training played an important role.

In 1950, Germany and the United Kingdom had the best-developed education systems, in which Level 3 vocational training was neither funded nor managed by the State but by enterprises (in Germany) or a variety of other bodies (in the United Kingdom). In France, short vocational training was split between public vocational education and apprenticeships.

2) The changes that have taken place between the 1940 cohort and the 1970 cohort have been influenced both by these initial differences and by the choices made during that period.

The cumulative sub-total 5+4+3 rose sharply in all countries from the 1940 to the 1950 cohort, and the increase in Spain, France and Italy was appreciably greater than in the other two countries. The 1960 cohort shows a further rise in Spain, France and Italy, and a definite slowing in Germany and the United Kingdom. Lastly, the 1970 cohort shows near stagnation in Germany, a small rise in the United Kingdom, and a continuing increase in the other countries. In 1998, when the 1970 cohort was approaching 30 years of age, the proportion of that cohort with a post-compulsory qualification was almost 80% in Germany and France, 66% in the UK, 61% in Spain and 53% in Italy; but in Italy, the proportion with such a qualification, especially from higher education, was still rising among those aged over 30 years of age.

The structure of post-compulsory qualifications varied at the outset, and evolved differently in each country.

This situation, and the developments in question, may be seen a little more clearly if the percentages of Levels 4 and 5 within the combined sub-total of 5+4+3 are calculated: Table 3 shows the results for the four cohorts.

The weaker the coefficient, the smaller the part played by upper secondary and higher education qualifications within the overall total of post-compulsory qualifications. The table demonstrates the prevalence of vocational training in Germany and the UK among the 1940 cohort, the near absence of such (certificated) training in Italy and Spain, and the intermediate situation in France.

The part played by upper secondary and higher education rises from one cohort to the other in all countries except Spain, reflecting the growth of vocational training in that country. Italy is a special case, since there has been a rise in the proportion of upper secondary education which is vocational and is immediately followed by entry into the labour market.

The initial differences (in the 1940 cohort) are easily explained by the very modest scale of short vocational training courses in Spain, Italy and, to a lesser extent, France. It can be seen that, with the exception of Spain, all the countries have comparable proportions of qualifications

at Levels 5+4, Germany being a little behind.

At least until the 1960 cohort, developments were similar in France, Italy and the UK Spain was catching up with these three countries, and Germany showed slower growth. The differences between the 1960 and the 1970 cohort show greater divergence: France was the first country where the proportion of qualifications at Levels 5+4 approached 50% of the cohort – of those aged 30 years in 2000 – with Italy not far behind and Spain apparently heading in the same direction, while the proportion did not exceed 35% in the UK and was below 30% in Germany. The data for the 1980 cohort provide some further indications: in France, the proportion obtaining a qualification at least at Level 4 (the baccalauréat) rose considerably in the 1990s, reaching 60% among the 1975 and later cohorts; but this has been achieved largely by a reduction in the proportion whose highest qualification is at Level 3. In the UK after 1988, the proportion of young people reaching at least A-Level has greatly increased and appears to be stabilising at just below 40% of the cohorts born since 1975. In Germany, developments seem to have been more regular and, in the case of the 1975 cohort, the proportion holding qualifications permitting entry to at least some form of higher education is around 37 to 38%.

It is evident that there has not been a single model of educational development, such as might have caused France and, more particularly, Italy and Spain, to imitate the two countries that were most advanced educationally, and to follow the same path.

The main questions raised by the developments in education in the five countries relate to compulsory education but even more so to post-compulsory education. Why should there be such large gaps between the proportions holding qualifications entitling them to enter higher education and those obtaining a tertiary qualification? Why should short or intermediate vocational training vary so greatly from one country to another?

These questions in turn raise issues about the relationship between education and economic development.

3. Education and development

A detailed examination of this relationship is obviously outside the scope of this paper which, in the words of a recent article (Bils and Klenow 2000), does not seek to answer the question 'Does Schooling Cause Growth?' However, a few remarks will be apposite.

1) The countries with the weakest economies around 1960 were also those with the lowest levels of education. These are the countries that experienced the fastest expansion both in the economy and in education. For example, income per capita in Italy, expressed as a percentage of that of the United Kingdom, grew as follows:

1960	1983	1998
66%	90%	103%

(Sources : 1960 and 1983 CERC 1985 p. 38; 1998 OECD 2000 p. 17 Disposable National Income for 1960 and 1983, GDP for 1998)

2) Economic growth was accompanied by a whole range of social changes, such as urbanisation, the creation of larger labour markets, new forms of organisation of work, the spread of trade unionism and collective agreements, and an increase in geographical and occupational mobility. Economic development called for more skills, but the phenomena just mentioned also helped to bring about profound changes in the ways in which skills were acquired and identified. The differences in the level of post-compulsory education among the 1940 cohort also reflect the differences in economic development in the early 1960s. Germany and the United Kingdom then had the highest income per capita, that of France only amounting to 71% of that of the UK (CERC 1985).

3) In order to take account of these changes, it is necessary to make a distinction between the development of skills and that of school education. Formal education in the form of courses leading to certification played four roles in fact during the period 1950-2000: it helped to give individuals increased skills that were useful for economic growth; it replaced some of the hidden training given on the job in enterprises and in agricultural businesses that were often family-run; it contributed to the process of formal certification of

skills which was more and more useful for the functioning of the labour market in societies organised in new ways; and lastly, it acted as a filter in the process of job selection, which means that it was also one of the mechanisms determining people's place in society.

Depending on the level of economic development in the early 1960s, the importance of these different roles varied from one country to another, influencing the shape of the education system. These systems essentially reflect the nature of the supply of and demand for initial education. Comparative study of the expansion of education must therefore focus on this supply and demand. However, use of the terms supply and demand does not imply that it is a competitive market, and the second part of this article will attempt to describe more closely how supply and demand are determined in education, and how they change. Those leaving the education system with some form of qualification are the supply of trained persons which meets the demand from employers. The labour markets play a key role in the use made of qualifications, and this role naturally influences the supply and demand of education and training in return. The way in which it does so is one of the questions that we must try to answer.

Part 2: Educational supply and demand

In a market system, the development of a product may be the result of initiatives arising out of either supply or demand. Suppliers may offer new goods, and demand may then validate that supply by buying the goods, but potential buyers may also express their demand by stating what it is that they want to achieve, so that suppliers translate this demand into actual goods and services. Education only fits this scheme of things to a limited extent. Each country has its own education system, with its own characteristics reflecting policy choices that usually vary little over time. From this angle, supply precedes demand, and sometimes completely controls it: this is the case with compulsory education. But there are margins of freedom, and the various groups involved (the State or regional bodies, families, employers, trade unions and, especially, teachers) play their parts in creating and developing education systems, and hence in the outcomes of those systems, i.e. the number of qualified individuals and the qualification structure of each cohort.

1. Public authorities

Policy choices in education have largely been irreversible in the countries studied, and changes in the political majority have not led to substantial change. Hence, the main features of the education system remained recognisable in each country between 1950 and 2000, with the exception of Spain, which built up its education system from a very low base. It is therefore easy to contextualise the development of education, but it is far harder to identify the common trends.

However, the policies pursued in all the countries have aimed at expanding education, and this aim has been that much more ambitious where the level was low to start with. Four major ideas have underlain this policy:

❏ The first idea was equity. It was thought right to ensure that all children had equal opportunities. But the complexity of this notion very quickly became apparent. Did it mean establishing an identical minimum curriculum for all? If so, over how many years? Did it mean giving equal opportunities to begin with and then creating a differentiated system based on academic success rather than social origin or family income? But that very success was not independent of family situation, so that the problem could not be resolved completely by adopting a meritocratic approach. Each country responded differently to these questions.

❏ The second idea was to give all children the minimum knowledge deemed necessary for living and working in present-day societies, which meant disseminating the values on which such societies were based.

❏ The part played by the third idea varied from country to country. This was the notion that economic development called for mobilisation of talents and that the

expansion of education was at least a prerequisite for economic growth and was sometimes even a driving force itself, acting as an independent variable in the growth process.

❑ The fourth idea was that all qualifications should be at a level that matched the probable futures of those who had taken the various courses. In other words, they should match a simplified perception of the relationship between the levels of qualifications and the jobs available to those entering the labour market. National reports show clearly how this idea was implemented: in Italy, for example, every cohort until 1962 went through an 'orientation' year at the age of ten years; around 45% of the cohort were prepared for entry at the age of 14 into the labour market by pursuing what was regarded as a suitable practical curriculum; the others went on to lower secondary education, also up to the age of 14 and were then prepared for upper secondary education or entered the labour market, although usually the tertiary rather than the secondary sector.

The public authorities thus played the dominant role in establishing the structure of the education system in five countries: defining the various types of course, and the links between them, and laying down the general conditions of admission, and sometimes even the numbers of individuals that could be admitted to a particular type. This was the case at least in compulsory education, and in the secondary general education that largely governed access to higher education and, in consequence, the essentials of higher education itself. The situation was more complex in the case of so-called 'short' vocational training, which often directly followed 'orientation' at the end of compulsory education.

2. Enterprises

These always provided vocational training by means of apprenticeship, but this took very varied forms. The greatest degree of institutionalisation was under the dual system in Germany, in which enterprises provided a large part of vocational training for the majority of each cohort. Where vocational training was chiefly provided by public institutions funded by public authorities, enterprises were not excluded since they played a part in establishing syllabuses.

Enterprises also exercised an indirect influence through the manner in which they made use of the newly qualified entrants to the labour market. Enterprises need skills, that is, individuals capable of carrying out the tasks necessary for the production of goods and services. These tasks may be combined in different ways, so that the content and structure of jobs are not strictly determined by the technology and nature of the goods produced. In consequence, enterprises seek above all individuals who will be able to work as efficiently as possible, at lowest cost, and with greatest adaptability. They are thus users of the education system and react to qualitative and quantitative changes in the supply of qualified individuals resulting from developments in education. In some configurations of the relationship between the education and training system and the labour markets, this is not incompatible with the principle of matching training to jobs. Controlled occupations, where a specific qualification is a prerequisite for access, are the best example.

3. Families and young people

These account for the demand for education. It is often said that there is a 'social demand' which is an autonomous basic trend in societal development. Kivinen and Ahola (1999) write, for example: 'Facing growing social demand, governments are forced to expand educational provision. At the same time, this feeds 'educational self-propulsion', which means that the educational level of the population rises irrespective of changes in occupational structures and skills demand.' According to this notion, the expansion of education is largely governed by this somewhat mysterious social demand.

In order to understand the evolution of education systems and educational demand, it would seem helpful to perceive demand as the result of a limited range of choices made by individuals and families. The factors influencing these choices are varied and complex, and are studied in the economics and sociology of education. Decisions are based on expected

benefit in the context of incomplete information, since the most that an individual can know is the likelihood of obtaining a given qualification by taking a particular course, and of obtaining the average benefit associated with that qualification. In these circumstances, an individual will take into account the benefits associated with various types of course, the direct costs of the course, and the opportunity costs or income forgone by studying in place of working. Let us suppose that, at the end of compulsory education, an individual has two choices: (i) taking a three-year course with probability *p* of obtaining a qualification at the end of it, in the knowledge that this qualification will enable him or her to obtain a job E1, the average benefit of which is W1 with a given variance; or (ii) entering the labour market, where he or she can immediately obtain salary W2, which is lower that W1, in the knowledge that after three years he or she will be able to obtain a job E'2, the average benefit of which is W'2, also with a certain variance. Let us suppose also that the direct cost of the course is nil. The decision will probably be to take the course if the probability *p* of obtaining the qualification is high, if W2 and W'2 are much lower than W1, and if the variance of the benefits in job E1 is lower than that associated with job E'2. But a weak probability *p* may lead to a decision to enter the labour market immediately.

It follows that demand for education among families and young people is directly influenced by the way in which the education system is organised, which governs the probability of success in the various courses offered, and influences the probability of obtaining a job with which a given benefit is associated. And selection for entry to a course on the basis of academic criteria obviously reduces the possibility of choice.

The rise in the demand for education over time thus appears to us to be a response to a variety of stimuli combining changes in the education system with the prospects offered by the labour market. In consequence, it should be possible to identify periods when demand rises in response to events in the labour market, thus placing pressure on the education system to increase the supply of education. At other times, the supply of education may be affected by decisions taken by public authorities and may in turn influence demand; it may be, however, that such a change in the supply of education will have little effect on demand since it does not fundamentally alter the data on which individuals base their decisions.

4. Changes in education

The expansion of education over the last half-century has been heavily influenced in our five countries by the policy choices of the public authorities. But these choices leave margins of freedom, especially in the many cases where the State lays down the content of courses and admission criteria but does not set strict limits to the number of places offered on each course. This number then depends on demand, that is, on the choices made by families, and public authorities will expand and fund one course or the other in response to demand. In each of the five countries, there is a varied combination of 'open' courses, in which the number of places responds, sometimes after a time lag, to the demand for training, and 'closed' courses, in which the number of places depends on policy choices and economic variables. (For example, the numbers of places in various specialisms in the German dual system are largely determined by enterprises in accordance with their judgement of the future.)

Developments show some convergence between countries, but also reveal the essential differences resulting from these policy choices and their interaction with demand, and from the behaviour of employers: how have employers made sure of procuring the skills that they need? The observed expansion of education has thus been influenced by two sets of relationships: those between educational supply and demand, and those between the supply of skills and demand for skills in the labour market.

The supply of education and training is governed in a complex fashion in the five countries. Almost everywhere there is a market education sector where the supply of places varies in response to the price that individuals are prepared to pay in order to pursue the courses in question, but most of the supply is governed

differently. The three main factors are (i) the reaction of public authorities to the demand for education and training, (ii) budgetary constraints, and (iii) employers' estimates of their requirements for qualified personnel. And lastly, chiefly in higher education, the costs of studying borne by students may be a governing factor akin to that of market forces.

Part 3: Comparative study

Between 1960 and 2000, the speed of educational expansion differed in the five countries, largely reflecting the level already reached in 1960, as was seen in Part 1. Policy choices also had an impact, however, and the two countries that were the most advanced in 1960, Germany and, particularly, the United Kingdom, were those where policy choices were the most restricting. Furthermore, each country except Spain expanded education while retaining the main features of the education system that existed in 1960, although naturally emphasising some parts more than others. Spain came to base its current education system more or less on the French model; this was not the only option, but it probably best matched Spanish society.

Compulsory education is a key area of expansion, and it is here that convergence is most apparent. Next comes post-compulsory education, where the picture is more complicated. Around 1950, secondary general courses largely served as a preparation for higher education, and vocational education and training, including apprenticeships, provided preparation for specific occupations and trades. Lastly, higher education itself was similar in the five countries in 1960, with the exception of France, where the division between Grandes Ecoles and universities was more pronounced than elsewhere.

We shall explore these three points further.

1. Compulsory education and intermediate school

The table below shows the changes in the age at which compulsory education ends; the symbol X indicates the age applicable in 1944, and a date in brackets indicates the year when a change became effective.

Table

	13 yrs	14 yrs	15 yrs	16 yrs
Spain	X	1964		1990
Germany		X	1960 (1966)	
Italy		X	1999	
France		X		1959 (1969)
UK		X	1944	1973

In 1950, the five countries had one thing in common: a key choice of direction at the age of ten or eleven years, after four or five years of basic education. There were three possible options thereafter in Germany, and two in the other countries.

The short option led to the job market at the age of 14 years, with or without subsequent apprenticeship. The long option was upper secondary education leading to a qualification permitting immediate entry into higher education (such a qualification being a necessary but not always sufficient condition). In France, the short option could be extended by two or three years of higher primary education, enabling pupils to rejoin the long secondary option. In Germany, the intermediate option was the Realschule, which led to a school-leaving certificate at the age of 16 years.

During the 1950s and '60s, there was a major shift. The choice of direction at the age of 10-11 ceased to be significant or was abolished, except in Germany. Schooling tended to become uniform through until the end of compulsory education. This reflected a concern to ensure equity and a desire to identify individuals from all backgrounds who were capable of studying successfully.

Secondary education began at 11 years of age, and the period between 11 and 14 or 15 years, i.e., to all intents and pur-

poses until the end of compulsory education, was both a complete course in itself and a selection stage, even though this was not officially admitted in all countries. In Spain, Italy, the United Kingdom and France, a qualification could be obtained at the end of this course, but its function differed from one country to the other. In Italy, the licenza media inferiore, obtained in principle at the age of 14 years, was a requirement for further study, and a large proportion of each cohort gained such a qualification. In Spain, the bachillerato elemental served the same purpose. In France, the brevet d'études de premier cycle (BEPC) was not a formal barrier, further study and choice of option being dependent on school results; there was also an initial decision about choice of direction after two years of secondary education, at a minimum age of 13 years, but young people who were then directed towards short vocational training courses were often older because they had fallen behind in their previous schooling. In the United Kingdom, O levels remained highly selective, and the results governed further study at A level.

In Germany, choice of course persisted at age 11, but a growing proportion of young people took the intermediate option or the long option leading to the Abitur.

Developments in the decades that followed merely confirmed these trends.

The extension of compulsory education was itself a factor in the expansion of education. At first, it increased the minimum number of years of study, and it was then accompanied by an attempt to enable a high percentage of young people to obtain an elementary qualification, which considerably reduced the numbers of the 'unqualified'. The move towards standardised courses was more marked in some countries, particularly in France, where the 'collège unique' was introduced in the 1970s.

This extension of compulsory education clearly illustrates the role played by schools in social differentiation, however unintended. Success at school remained based on academic criteria, and the successive periods of 'orientation', or choice of course, were based, albeit less explicitly, on both social criteria and – increasingly – on academic excellence. The differential pattern of results obtained at primary school between the ages of six and eleven years seldom altered in the years thereafter.

2. After compulsory education: a variety of arrangements

Tables 1 and 2 reveal some convergence between the five countries, in that the proportions of each cohort with a qualification permitting entry to post-compulsory education or training, which differed greatly until the 1970s, have tended to become closer. It would appear that this convergence has only come about because of the appreciable difference in the speed with which education has expanded, which has been faster in the countries that started behind. But we have also seen that this convergence has taken different forms, upper secondary and higher education growing far more quickly in France, Italy and Spain than in Germany and the United Kingdom.

Why should this be? In order to find the answer, it is necessary to use the framework for analysis set out in Part 2. The supply of education, and the relationship between education and jobs, differ from one country to another, so that the choices made by young people and their families have also differed. It is not easy to identify the real differences between countries in the supply of education, however. Everywhere, there has been upper secondary and higher education funded by the State, but the similarity ends there.

The key question in all countries is the following: what are the possible options for a young person reaching the end of compulsory education (or the age of 11 years in the case of Germany because of the retention of the three tracks), and more exactly, what are the characteristics of the usual combinations of education and employment between which he or she can choose? Around 1950, the answer was simple: a minority of young people went on to upper secondary education, the main purpose of which was to prepare them for higher education. The vast majority of young people went straight into the labour market or into vocational train-

ing to become skilled manual or white-collar workers. But this apparent simplicity may hide complex relationships between education and employment, and widely differing ways of organising the education and training system.

Let us begin with the situation around 1960.

2.1 The situation in around 1960

1) Germany
Choice of track at the age of 11 years was based on academic success and social origin. Probably no more than 20% of the 1940 cohort obtained either an intermediate school certificate or the Abitur. But the key feature was the dual training system, which had links with the three tracks of general education (in 1960, essentially with the two shorter tracks). The main characteristics are well known: enterprises provided apprenticeship places and selected those to fill them; training courses were standardised; there was generally a high probability of obtaining a qualification; the qualification gave not only trade skills but also a good chance of finding a skilled job, and unemployment among young people was low; after apprenticeship there were real opportunities for advancement by taking further qualifications while working (nearly 30% of those classified as holders of higher qualifications among the 1962 cohort took this route); and lastly, employers set little store by general educational qualifications without apprenticeship.

2) The United Kingdom
The 1940 cohort still reflected the former education system: a high percentage of young people did not go further than compulsory education and obtained no qualifications. Short vocational training courses were widespread but were run by a wide variety of institutions that were strictly outside the education system, and training took place after entry into the labour force.

For the 1940 cohort, gaining a lower secondary qualification (Level 2 of the scheme used in Table 1) meant studying somewhat beyond the end of compulsory education. The sub-total 2+3+4 reached 46% of the cohort, appreciably higher than in France (33%).

3) Italy
In this country, the education system already had the shape by the early 1960s that it was to retain until very recent reforms. After compulsory education leading to the licenza media inferiore, education and training provision comprised sporadic short vocational training courses and diversified upper secondary education at technical and vocational institutes, alongside courses in the arts and sciences. This system already existed in 1945, and was expanded and made more flexible. What is peculiar to Italy is that from 1960, those gaining qualifications from technical and vocational institutes accounted for almost three quarters of young people with an upper secondary qualification. This qualification granted access to university, subject to certain restrictions that were abolished in 1969. The sub-total of the 1940 cohort came to 17%, a proportion similar to that of the United Kingdom and France, and higher than that of Germany. The small numbers taking short vocational training courses indicate that learning on the job was widespread and did not lead to a formal qualification.

The 1998 reforms may have a significant impact. The age of the end of compulsory education was raised to 15 years, but young people must pursue education or training until the age of 18 years, either within the school system, or through vocational training arranged by the regions, or through apprenticeship. Everything will depend on how these three types of education and training are organised, building on what already exists.

4) France
This country is characterised by educational provision controlled by the public authorities (the 'tout scolaire' or school-based system). In the early 1960s, the system was as follows: primary education fed directly into the labour market with the possibility of apprenticeship leading to a qualification, or into short vocational training courses given within the education system. Upper secondary education led to the baccalauréat, but many pupils left school during secondary education. Training on the job, teaching uncertificated skills, was also very widespread. The 1959 reform began by standardising provision after five years of primary education, decreeing that all young people

should move on to secondary education at the age of 11 years.

5) Spain
The situation in the early 1960s was clearly reflected in the qualifications structure of the 1940 cohort: very poorly developed upper secondary education and hardly any short vocational training courses. Most skilled manual and white-collar workers were trained on the job after entering employment at the end of compulsory education.

Around 1960, therefore, the prevalence of short vocational training courses, and the way in which these were arranged, differed from country to country. Germany was the only country which had organised, highly institutionalised non-school education, and this left little space for uncertificated on-the-job training recognised by employers. The United Kingdom also had no school-based short vocational training courses, and relied on a large variety of bodies, while leaving plenty of scope for uncertificated on-the-job training. France combined school-based training before entry into the labour force with apprenticeships and uncertificated on-the-job training. Italy and Spain still relied largely on on-the-job training.

2.2 Subsequent developments

1) Germany
Education expanded through an increase in the percentage of each cohort gaining intermediate and upper secondary qualifications, rising from 40% in the 1962 cohort to over 60% in the 1972 cohort. In consequence, the initial certificate of general education increasingly served as an instrument of selection for apprenticeship in the most popular fields: currently, for example, around a third of holders of the Abitur go into dual system apprenticeship, especially in banking and insurance. The various elements of the system thus support one another, and the retention of three tracks of education has probably held back the movement towards longer formal education. This has only been possible because of the existence of the apprenticeship system, which has provided attractive training and employment options. Families choosing the intermediate track of general education (the Realschule) will have weighed up the likelihood of success at that level, the opportunities for apprenticeship, and the prospects for employment. This 'low-risk' option is judged preferable to that of 'running before the storm' by continuing to study for as long as possible. The distinct rise in the proportion of holders of the Abitur who choose apprenticeship rather than university can be interpreted in different ways: a) it can be seen as a preference for security in the light of the growing risks of university study; or b) it can be seen as the result of a tendency for families to opt earlier to continue with upper secondary education in the knowledge that this can lead not only to university but also to apprenticeship in more select fields – and this will in turn lead to an increase in the proportion pursuing upper secondary education.

The German system has retained the same overall structure over the period on account of its coherence and the capacity of the apprenticeship system to adapt.

2) The United Kingdom
Compulsory education has gradually been standardised through the spread of comprehensive schools and the raising of the age to 16 years, which has enabled a larger number of young people to obtain an academic qualification, and has greatly increased the number entitled to continue with general education: the proportion of the 1960 cohort eligible to continue after the age of 16 was only 23%; this percentage reached 26% in the 1970 cohort, and 45% in the 1980 cohort. Similarly, the proportion obtaining three A level certificates has risen over the period, from around 7% among those aged 18 years in 1965 to 23% among those aged 18 years in 1996.

However, while unemployment among 18 to 19-year-olds was very low in the 1960s, it has increased, reaching 20% in the 1980s, and falling back thereafter.

Against this background, many young people have moved straight into the labour market between the ages of 16 and 18 years with nothing but general education (Levels 2 and 4 of the scheme used here).

It would appear that two factors have been crucial to their decision:

❑ the characteristics of the upper secondary education on offer: entry is dependent on the quality of school results, and the level demanded has remained high;

❑ the behaviour of employers, who value general education as an indicator of either potential capacities or of skills already acquired.

In these circumstances, families and young people have limited options, and the rate of entry into employment between the ages of 16 and 18 years is increased by the large numbers of young people in this age range who work while continuing to study. The way in which courses are arranged from the start of secondary education allows each student to evaluate his or her school performance and hence to assess the likelihood of success, first, at the end of compulsory education and, secondly, over the subsequent two-year period leading to A levels. It is likely that the decision is not seen by many young people as a clear-cut choice between continuing to study or working, but is a gradual process instead, governed by school results and the opportunities offered by the labour market. Hence, a high percentage of those aged 30 years in 1998 have nothing but the qualifications obtained at the end of compulsory education. Short vocational training courses have lost much of their importance over the last 40 years.

3) Italy

Entry into upper secondary education is quite easy. As a result, a large proportion of each cohort set out on this path, but many drop out. Nonetheless, there has been a continual rise in the proportion of young people obtaining an upper secondary qualification: around 25% of the cohorts born around 1950, and 47% among those born around 1966.

Many young people enter the labour market with the licenza media inferiore (lower secondary certificate) and perhaps a few years of upper secondary. This means that enterprises must be recruiting at that level and that opportunities for uncertificated on-the-job training are quite plentiful.

Young people therefore choose to pursue secondary education because if their results are poor and they drop out, the cost of their decision will be low: no other form of education or training would have been more appropriate.

4) France

Compulsory education has gradually become standardised, and short technical training courses have been developed. A system of education and training options has been introduced which is based on academic criteria and is intended to cover all of a cohort. Since the general adoption of the collège unique in the late 1970s, all young people are expected to continue until the end of lower secondary education (the end of the third class) before continuing general or technological studies leading to the baccalauréat or vocational training. Until 1985, this training consisted of short courses leading to the certificat d'aptitudes professionnelles (CAP) and, more usually, to the brevet d'études professionnelles (BEP).

The choice is made on the basis of school results and family wishes. This has helped to devalue short vocational training courses in the eyes of families. In 1985, vocational baccalauréats were established, to be taken after the BEP and giving access to higher education. This diversification of provision was intended to spread education, a goal expressed in the slogan '80% of a generation should gain a baccalauréat'.

Throughout the period, the public authorities have shown a desire to expand education as a 'public service', that is, within the school system itself. The introduction of block release training and the return to apprenticeship are a recent development. The education provided has not reduced the overall demand from families and young people, and has given them appreciable help with making their decision: continuing to study for as long as possible has seemed the best solution in an economy where youth unemployment has been growing and where enterprises have no longer been offering jobs to those without qualifications. The transformation of the organisation of work seems to have played a part as well; the reduced demand for manual work based on experience, in particular, has encouraged families to opt for staying at school (Beaud and Pialoux 2000). Opportunity costs have remained low, and the range

of courses offered has therefore increased the likelihood of obtaining a qualification since the process of choosing an option in effect means that the population of pupils has been divided into categories pursuing very different courses, even though they lead to qualifications that are called by the same name. These differences in content probably enhance chances of success: the success rate for the various types of baccalauréat ranges from 74% to 81% (in the July 1999 session).

5) Spain
The pattern of development has been similar to that of France, with a time lag of about fifteen years. However, developments in Spain do reveal two peculiarities.

The first is the speed of the changes. Tables 1 and 2 make this clear: the proportion of a cohort with a short vocational training qualification has multiplied by a factor of nearly seven in 30 years, and the proportion of those with upper secondary and higher education qualifications has multiplied by a factor of five. The percentage of those with qualifications higher than those obtained at the end of compulsory education has risen from 11% among the 1940 cohort to 61% among the 1970 cohort, between five and six times as high. In comparison, France only witnessed a doubling of this percentage. There is, however, a considerable way to go as the proportion not proceeding beyond primary education is still around 40% among the 1970 cohort.

Economic development in the 1950s and 1960s led to an increase in the numbers entering lower secondary education, which culminated in the bachillerato elemental. The 1970 Act introduced expanded vocational education within the school framework, which held back the demand for general education; but this demand took off again under the education policies pursued during the period of political transition in the 1970s and '80s. The investment needed was made, and the growth in education did not slow, as it did in the other countries between the 1960 cohort and the 1970 cohort.

Will the policy choice of a school-based system of education and training produce the same effects as in France, that is, a tendency to hang on for the highest possible level of qualification? Two factors may influence the answer: the strength of economic growth may increase the opportunity costs of studying because of the heavy demand for workers, while the sharp decline in the birth rate in recent years may encourage large-scale immigration by workers with little education, which would encourage Spanish young people to distinguish themselves from them by obtaining qualifications.

6) In short, three countries, Germany, the United Kingdom and Italy, have maintained the essentials of the combination between general education and vocational training which obtained before 1960. France and Spain have developed the school-based option. In the case of France, this has led to the creation of a technical track from BEP to vocational baccalauréat and on, in some cases, to entry into short higher education courses.

2.3 Higher education

1) Developments
Table 1 clearly shows that the proportion of each cohort with a higher education qualification has risen in all the countries. There is an obvious contrast between the 1940 and 1970 cohorts. At the same time, it is evident that this growth has differed from one country to another: very weak in Italy, moderate in Germany, a little stronger in the United Kingdom, and very strong in France and Spain.

This growth has of course necessitated previous expansion in upper secondary education since the qualification obtained at the end of that level is generally a prerequisite for entry to higher education. Germany is the main exception since qualifications classed as higher education can be obtained without an upper secondary leaving certificate thanks to continuing education. Table 2 shows that the sub-total 4+5 (upper secondary and higher education) has in fact risen appreciably.

But it is also evident that the proportion of those with secondary qualifications who obtain a higher education qualification is tending to fall, except in France, as can be seen in Table 4.

How can these two phenomena be explained: the differences between countries in the rate of increase in the proportion of those gaining higher education qualifications, and the growing gap between the total number with secondary qualifications and the proportion of them who obtain higher education qualifications?

2. Commentary

Each country demonstrates its own type of development of higher education, which results from the specific mixture between the influences of educational supply and demand.

The simplest case is probably that of the United Kingdom. The number of places offered depends closely on the funding allocated by the State, and the universities select their students on the basis of the results obtained in the A level examination. In consequence, the number of students will depend on the number of places. Each time that the Government has decided to increase the number of places, the numbers of students and graduates have risen. The proportion of graduates in each cohort hence varies with the size of the cohort: with a stable number of places, demographic decline will lead to a rise in the proportion of higher education graduates, which means that the least popular universities will lower their selection criteria to some extent. The reverse will be the case if the size of the cohort applying to university increases. Recent years have witnessed a rise in the proportion gaining secondary qualifications, but also an increase in the cost of studying borne by students. Thus, even by lowering their selection criteria, universities cannot fill all their places, and the number of graduates tends to remain constant. Over the last 40 years, the rationing of places is the likely explanation for most changes, but this factor is tending to give way to the influence of demand, which is reacting to the rise in the cost of education, and perhaps to the decline in the probability of obtaining a qualification and the growing uncertainty of the benefits of higher education qualifications. Furthermore, enterprises are continuing to recruit those with upper secondary qualifications directly, so that the opportunity costs of studying are not coming down.

Table 4.

Persons with a higher education qualification as a proportion of the total number with secondary and higher education qualifications

	Germany	UK	France	Italy	Spain
Born 1940	1.00	0.84	0.63	0.30	0.75
Born 1950	1.00	0.84	0.63	0.30	0.62
Born 1960	0.88	0.78	0.63	0.33	0.57
Born 1970	0.75	0.74	0.66	0.15	0.53

Germany offers a different model. The supply depends on the funds allocated by the public authorities, and there has been discussion on several occasions over the period as to whether it is appropriate to increase those funds or not. Since the early 1980s, the trend has been towards stabilisation. But, unlike the situation in the United Kingdom, that does not mean that the number of students is limited, since the notion of a 'place' is much vaguer in most courses. On the other hand, university courses are very long, and the benefits associated with a qualification have often fallen. Moreover, dual apprenticeship in the very popular banking and insurance sectors have generally been opened up to holders of the Abitur. In addition, a shorter form of higher education, the Fachhochschule, was created 30 years ago. Courses at colleges of this type are open to those with the Abitur or the Fachhochschulreife, a qualification that can be obtained via an intermediate school certificate combined with dual apprenticeship. There is now also a way for holders of the Abitur to obtain a Fachhochschule qualification through dual training (Haas 2001). Hence, despite the increase in the proportion of those with secondary general qualifications, the proportion of higher education graduates is scarcely growing. This is a new manifestation of the involvement of enterprises in education and training.

The peculiarities of the situation in France are obvious in comparison with those of the two preceding countries. The primary feature of French higher education is the range of education offered: a closed sec-

tor comprising the Grandes Ecoles and the health professions, where the notion of a 'place' is even stricter than in the United Kingdom, a completely open sector, covering most university subjects, in which possession of a baccalauréat is sufficient for enrolment, and lastly, a closed sector of short vocational training courses in which the number of places has risen hugely over the last 30 years. This complex structure has made it possible to reconcile regulation of the numbers of graduates in certain courses with the principle of open access to higher education. Furthermore, the substantial increase in those obtaining a baccalauréat at the end of upper secondary education is partly due to a diversification of courses. Holders of general baccalauréats have far greater chances of success than holders of technological baccalauréats in university courses, and of course in seeking admission to the Grandes Ecoles. But short higher education courses, principally those training senior technicians, provide suitable avenues for holders of technological baccalauréats. The structure of French higher education thus encourages the pursuit of study beyond the baccalauréat by not creating obstacles to enrolment and providing a variety of courses such that most young people can choose a course in which their probability of success is reasonably high. The consequence of this system is that higher education qualifications are very varied and do not all target the same sectors of the labour market. In 1998, 39% of those leaving the education system had higher education qualifications, but 48% of these were graduates of short higher education courses.

For 40 years, France has pursued a very open policy of higher education provision, which has maintained lively demand in that the level of the qualification (expressed as the minimum length of study required to obtain it) is an important criterion for access to jobs. For some 20 years, high unemployment made the highest possible level of qualification seem a major asset in the hunt for a job since the rate of unemployment among young people has had a negative correlation with the level of qualification. The scale and diversity of educational provision are no doubt major causes of the growth in the proportion of each cohort gaining post-secondary qualifications, and also explain why the ratio between Level 5 and Levels 4+5 has not fallen, as it has in the other countries.

In Italy, the proportion of those with higher education qualifications is extraordinarily low, while the proportion holding upper secondary qualifications granting entry to higher education is very high. A large number of these persons do in fact enrol at university, where entry is open, but they work at the same time, which extends the duration of their studies and leads to considerable drop-out. Furthermore, the range of secondary qualifications gained by those attending technical and commercial institutes is perhaps not a suitable preparation for academic university courses. In addition, it appears that higher education qualifications are gained well beyond the age of 30 years. A comparison between the Italian and French systems is enlightening: in France, the diversity of higher education, including in particular short vocational courses, offers those with technological baccalauréats options where their rate of success is quite high. There was no such opportunity in Italy until the recent reforms. It is nonetheless probable that many of those who drop out of higher education without gaining a qualification nonetheless succeed in making use of their time, however short, at university.

Spain is characterised, as we have seen, by the very rapid expansion of education since the early 1960s. Access to higher education was relatively restrictive at the beginning of the period, and has subsequently become easier. The development of short higher education courses has contributed to the increase in the proportion of higher education graduates. Graduates from these courses account for between 35% and 40% of the total number of those with higher education qualifications.

Conclusion

This examination of the evolution of 50 years of education in the five countries studied reveals the following features:

❑ The considerable initial differences in economic development were accompa-

nied by no less significant differences in formal, certificated education. The gaps in economic and educational performance have narrowed throughout the period, although it is not possible to identify a simple causal link within the confines of this study.

❏ This convergence has not occurred through imitation of the model presented by the countries that were the most advanced at the start of the period. Each country has followed its own particular path in education. The features of the education system at the beginning of the period have influenced developments. Spain and France have systems that are quite similar, but each of the other three countries has strongly marked peculiarities, so that any attempt at creating a typology would appear arbitrary. It is not apparent from this study that a Northern European model contrasts with a Mediterranean model: the German model has specific features which distinguish it from that of the United Kingdom.

❏ Most qualifications are obtained before the age of 28 to 30 years. Below this age are to be found both initial education in the strict sense, before entry into the labour market, and vocational training through apprenticeship and various combinations of periods of work and study. It would appear that the clear division between a phase of education and training, and a phase of work, must increasingly be abandoned. For the time being, this means merely that the ten or twelve years following the end of compulsory education are, for a growing number of individuals, a period of searching for an identity and a place in society, through education and work, in an order that is not immutable and combines these in a wide variety of ways.

❏ The five countries appear nonetheless to be heading towards a situation in which at least 80% of each cohort will, before entering the labour market, have spent twelve years, generally full-time, in education and training, including apprenticeship. The 'post-initial' phase will begin after that. Thus, without extending the period of legally compulsory education, the five countries appear to be moving towards a notion of socially necessary education up to the age of around 18 years. Germany and France have already reached or exceeded the 80% threshold.

❏ The more education expands, the more heterogeneous education systems become, since each country brings to the problems facing all a specific solution which is heavily influenced by its political traditions and the arrangement of its social relationships. This is reflected particularly in the role accorded to qualifications (or to some of them), but above all in the broad structure of the education and training system.

❏ Developments in education over the last 50 years clearly illustrate the complexity of relationships between the public authorities, enterprises, and families and young people. Expansion in the provision of places in educational establishments does not necessarily attract an influx of candidates. Demand for education reflects a set of decisions which, to all appearances, take into account the benefits and costs, monetary or not, associated with the opportunity to study. It is here that enterprises play a key role by participating in the arrangements for vocational training and, even if they remain aloof from this, by giving employment to those leaving school at the end of compulsory or upper secondary education. Qualifications help in the selection of applicants for a job, and provide some guarantee that they possess certain skills. The filter theory and the human capital theory are not contradictory (Dupray 2000). Enterprises stress one aspect or the other in accordance with the way in which it has been decided that the education and training system should be organised. A comparison between Germany and the United Kingdom is instructive in this respect: in Germany, enterprises chose a long time ago to develop a system of clearly defined occupations emphasising the acquisition of human capital, while the young people recruited in the United Kingdom may acquire these skills on the job or take a training course outside the enterprise. The choices made by families and young people may be rational in their own particular circumstances while leading to outcomes that are apparently contradictory. This is one illustration of the analysis of the demand for education put forward in this article.

Bibliography

Most of the statistical data and information about institutions used in this article are taken from the synthesis report cited in the bibliography (Steedman and Vincens 2000) or from the national reports prepared by the various teams during the first stage of the EDEX project.

Beaud, S. and Pialoux (1999). Retour sur la condition ouvrière. Paris: Fayard, pp 1-468.

Béduwé, C. and Fourcade, B. (2000). Hausse d'éducation et fabrication des compétences. *LIRHE,* note 322, December.

Bils, M. and Klenow, P. (2000). Does Schooling Cause Growth? *American Economic Review* Vol. 90 No 5, pp. 1160-1183.

Buechtemann, C. and Verdier, E. (1998). Education and Training Regimes, Macro-Institutional Evidence. *Revue d'Economie Politique* Vol. 108 No 3, May-June, pp. 293-320.

CERC (Centre d'études des revenus et des coûts). 1985. *Les revenus des Français. La croissance et la crise 1960-1983. 4ème rapport de synthèse.* Paris: La Documentation Française.

Dupray, A. (2000). Le rôle du diplôme sur le marché du travail : filtre d'aptitudes ou certification de compétences productives? *L'orientation scolaire et professionnelle* Vol. 29 No 2, pp. 261-289.

Germe, J. F. (2000). Logiques institutionnelles et élévation des niveaux de formation. EDEX working document, May.

Haas, J. (2001). La tradition sous un nouveau jour. La mise en place et le développement des études en mode dual en Allemagne. EDEX document: German report commissioned by the Zentrum für Sozialforschung, Halle.

Hartog, J. (2000). Human Capital as an Instrument of Analysis for the Economics of Education. *European Journal of Education* Vol. 35 No 1, pp. 7-20.

Kivinen, O. and Ahola, S. (1999). Higher Education as human risk capital. *Higher Education* Vol. 38, pp. 191-208.

Mallet et al. (1997). Diplômes, compétences et marché du travail. *European Journal Vocational Training* (Cedefop) No 12, pp. 21-36.

OECD. (2000). *Employment Outlook.* June. Paris: OECD.

Steedman, H. and Vincens, J. Educational Expansion and Labour Market (EDEX). Dynamique des systèmes éducatifs et qualification des générations. Comparaison internationale. May 2000.

The contrast between modular and occupational approaches to modernising vocational training

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From the example of the Scottish 'National Certificate' modular system, and the German Dual System of vocational training, it is possible to identify the characteristics of two opposite archetypes of training: the pure modular approach on the one hand, and the pure occupational approach on the other.
A continuum of intermediate models of vocational training can be drawn up between these two contrasting approaches to training. The author then analyses two innovative examples, one in Scotland and the other in Germany. He suggests how each of these schemes differs from its reference model by incorporating elements of the opposite model. The author demonstrates that each case departs to only a limited degree from the norm and concludes that it would be dangerous to speak of a process of convergence.

Social, economic and technical developments present education and training in Europe with a major challenge. If a modern system of vocational training which meets the challenges is to be provided for young people, consideration needs to be given to how to modify and update that system. Two different approaches to modernisation are modularisation, practised particularly in the United Kingdom, and the further development of the occupational approach, which is taking place for example in Germany.

The Scottish NC modular program as an example of modularisation

It is helpful to look at specific examples in order to clarify the meanings of approaches. One country with a complex modular approach is Scotland, which is regarded as highly innovative, has longer experience of comprehensive modularisation than England and Wales, and has implemented particularly wide-ranging schemes (OECD 1987). Scotland has had a modular system since 1984. It adopts a purist approach and has led Raffe (1988, p. 162f.) to conclude that 'moves towards modularisation are found in many other countries, but rarely in the thoroughgoing form in which it has been applied in Scotland.'

The system currently consists of around 4000 different National Certificate modules (NC modules).[1] Each module has a standard length of 40 teaching hours and is set out exactly in a statement called a 'descriptor'. This contains precise operationalised details of the range of content and of the knowledge and skills to be taught. These are checked and documented in accordance with specified procedures. The methodology and media to be used are laid down less precisely, the descriptor merely containing suggestions rather than binding instructions. Students are entitled to sit modular tests without having followed a formally regulated course of learning. Since the method of learning is open while the learning outcomes are standardised, these modules are also described as 'output-oriented'. The modules are developed by the quasi-governmental Scottish Qualifications Authority (SQA) in collaboration with experts in education. In addition, the development teams also check and update some 300 NC modules each year. The SQA is also responsible for certificating and documenting modules taken as part of the Scottish Qualifications Certificate, which is recognised by the State. Since the modules may be offered by a wide range of public and private institutions, such as secondary general schools, colleges, private educational providers and companies, the SQA monitors the quality of providers and approves them. The time taken to teach a module varies from place to place. In schools, modules are taught over a period of 13 weeks, each module requiring 40 teaching hours, while in industry the time taken is usually appreciably longer.

Anyone over the age of 14 years may participate, with no set enrolment requirements. There is no division into levels of ability, as occurs in other modular programmes such as the English NVQs and Scottish SVQs (NCVQ 1995; SQA 1997a and 1997b), nor do examination results allow for differentiation in performance,

([1]) With the introduction of a comprehensive reform of the Scottish education system in autumn 1999, the NC modules became part of the Higher Still system (cf. SQA 1999a, 1999b and Pilz 1999b) and are now known as National Units, though remaining largely identical in form. The NC modules outside the Higher Still system may only be started up until summer 2002, and must be completed by 30.09.2004 (SQA 1999c).

Fig. 1
Indicators of a modular approach

- ❑ Learning units restricted in time and content
- ❑ Flexible order of learning units
- ❑ Highly standardised objectives, content and testing procedures
- ❑ Output orientation
- ❑ Separate certificate for every learning unit
- ❑ Open access: freedom to join and leave at any time
- ❑ Not tied to a place of learning

since there is no grading system. Some prior knowledge is desirable but no evidence of ability is required for participation. Students are free to combine modules as they wish, as there are no restrictions on these. Because each module is certificated separately, it is possible to take just one module or to combine a large number of modules from different subjects, or from one subject area for the purpose of specialisation. Students may interrupt their learning or rejoin the NC modular system at any time, any modules already passed still being recognised (Howieson 1992; Connelly 1999 and Scotvec 1996a).

If the NC modular system is described as particularly radical, the question arises as to why it should be thought so. The typical features of the educational philosophy underlying the modular system can be summed up in terms of the following processes:

❑ Recognition of partial skills, and their certification, with quality guaranteed through standardisation.

❑ Teaching and availability of specific skills within companies.

❑ Focus on the individual needs and requirements of participants.

❑ Rapid adaptation to changed circumstances and/or the requirements of the labour market.

❑ A lifelong learning orientation.

In addition to the general features of a modular approach, specific indicators can be deduced for the practical implementation of a modular system. It is evident that NC modules are learning units limited in time and content, and may be taken in a flexible order. At the same time, the information in the descriptors leads to considerable standardisation of objectives, content and testing arrangements. Attention has already been called to the heavy emphasis on output orientation, standardisation making it possible to divorce the learning process from the learning outcome. Another peculiarity is the separate certification of each module. Lastly, one of the features of a module, as laid down for NC modules, is that learners are not generally tied to a particular place of learning.

If the characteristics of NC modules are abstracted and generalised (see Fig. 1), they may be regarded as indicators of an ideal modular approach.

The German Dual System as an example of training using an occupational approach

The Dual System in Germany (the Federal Minister for Education and Science 1992) currently covers some 360 different occupations recognised by the State. Besides combining colleges and enterprises as places of learning, it focuses on both complex, transferable vocational training and the development of comprehensive operational competence and personal development for young adults, within a system sponsored on the one side by the social partners, and on the other by State agencies. The notion of occupations plays a key role in the design of both the content of the vocational training system and of its formal arrangements. The educational philosophy behind the occupational approach can be described in terms of the following indicators, which can only be summarised briefly here (cf. Blossfeld 1994; Steedman, Mason and Wagner 1991; Pilz 1999a, p. 91-93; and Deißinger 1994, 1996 and 1998):

❑ The range of skills taught is complex and transferable between employers.

❑ The State exercises a coordinating role and ensures transparency by means of recognised occupations.

❑ The scheme has long-term stability, thereby creating continuity in the vocational training system; at the same time, each individual training process is a lengthy and sustained process of learning and socialisation.

❑ Pay scale and status are governed by the recognised occupation in question.

❑ The training produces an occupational identity and sense of purpose, and the educational element fosters personal development.

Alongside the somewhat abstract determinants of the occupational approach, particular features of the application of that theory can be identified at the practical level (see Fig. 2). One of these features is that the syllabuses are very broad in terms of the acquisition of wide-ranging operational competence and take up a considerable length of time, the learning contents being arranged in a linear sequence. Another feature is that the syllabuses leave those teaching them appreciable freedom in choosing how they translate learning objectives, content, methods and examination procedures into practice. With the exception of a few special arrangements, the learning process and the achievement of learning objectives are very closely inter-related in the Dual System. It is generally not possible to take a final examination without having taken part in the learning process. Furthermore, it is not possible to obtain a certificate, which documents the skills and knowledge acquired and is guaranteed by the State, without successfully completing a course of training. Those who drop out or decline to sit the examination receive no credit under the Dual System for partial performance. This system also provides for a conditional right of access, which usually takes the form of commitment to a training contract with a company, and indirectly for a conditional right to leave, since a certificate is only awarded on completion of the entire training process. The final feature of the practical implementation of the occupational approach is that it assumes a particular place of learning. As a rule, training is tied to the training company and the State vocational school (*Berufsschule*) under the Dual System.

Fig. 2

Indicators of an occupational approach

- ❑ Overall syllabus
- ❑ Linear arrangement of elements of learning
- ❑ Relative freedom of choice in objectives, content, methods and testing procedures
- ❑ Learning process linked to learning objective
- ❑ Certificate at end of course
- ❑ Restricted access, subject to certain conditions
- ❑ Right to leave indirectly subject to certain conditions
- ❑ Tied to a place of learning

Combining the Scottish and German experience into a general model

The modular and occupational approaches can be regarded, according to the indicators set out above, as ideal types forming opposite poles.

This makes it possible to express the two ideal types as opposite extremes, and to establish a continuum between them along which mixed forms can be located using the indicators developed above (see Fig. 3). These mixed forms may derive in their simplest form from one of the two extreme types, but adopt elements of the opposite approach, or may represent true mixed forms derived from neither of the two extremes. Which mixed forms of vocational training occur in practice will be analysed next.

The GSVQs as an example of moderate modularisation in Scotland

Another Scottish training programme will be described here by way of example, and located on the continuum.

Forty-six different General Scottish Vocational Qualifications (GSVQs) were devel-

Fig. 3

Model for defining training programmes

Occupational approach	Modular approach
Overall syllabus Linear arrangement of elements of learning	Learning units restricted in time and content , and flexible order of learning units
Relative freedom of choice in objectives, content, methods and testing procedures	Highly standardised objectives, content and testing procedures
Learning process linked to learning objective	Output orientation
Certificate at end of course	Separate certificate for every learning unit
Restricted access, subject to certain conditions Right to leave indirectly subject to certain conditions	Open access: freedom to join and leave at any time
Tied to a place of learning	Not tied to a place of learning

Occupational approach	Mixed approach	Modular approach
Dual System	?	NC modular system

oped from 1992 by the SQA and a predecessor organisation in collaboration with teachers, employers and other education and training experts, and it was possible to integrate a considerable number of NC modules into the new programme.([2]) GSVQs were sets of modules designed specifically for Scottish colleges and were offered at three levels of difficulty, each level requiring evidence of a higher degree of prior attainment to join, generally in the form of modules previously passed. At Level I, the lowest, a GSVQ consisting of 12 modules was offered, which allowed some choice out of a range of optional individual modules, thus allowing for a particular career direction. For the GSVQs offered in 14 different occupational fields, such as commerce and industry or care, a variety of modules had to be chosen at Levels II and III according to a points system, some from a compulsory core, and others from a group of options. Some modules were offered and therefore recognised at both Levels within an occupational area. The contents of the individual modules were job-specific but not tied to particular places of work, and were complemented by general subjects such as mathematics and languages. One particular feature was that the final examinations at Levels II and III took the form of projects in which students had to demonstrate the knowledge and skills learnt from all modules forming part of their GSVQ. Unlike the NC modules, a grade was given, differentiating between 'not (yet) been successful to pass', 'passed' and 'passed with distinction' (Murray 1997 and Scotvec 1996b and1996c).

When the GSVQs are examined in the light of the indicators established earlier, the following results are obtained.

On the one hand, the individual modules within the GSVQ are, like NC modules, subject to much standardisation of content because of what is laid down in the descriptor, while certification of each module is also guaranteed.

On the other hand, the emphasis in GSVQs is primarily on the overall context of a continuous learning process, on learning outcomes and on coherence between all modules. The final examination demonstrates this position most clearly. While the individual modules are documented in the Scottish Qualifications Certificate, it is only an overall pass in GSVQs which counts for anything in the education system (e.g. in admission to higher education) and in the labour market. The points system and the overall grade given in the certificate are evidence of this approach at an institutional level. From a teaching point of view as well, great stress was laid by the SQA and the colleges on students' gaining an overall qualification, and this was manifested in advice sessions and the structure of teaching. The learning process was constantly being adjusted to satisfy the nature of the examinations, and teachers were given greater freedom in ordering teaching content than in the case of NC modules. It cannot therefore be said that there was an output orientation.

As already indicated, GSVQs were developed primarily to be offered in colleges, and were therefore suited to college conditions. As a result, a focus on a place of learning was planned in from the start. The fact that students were not free to

([2]) The introduction of the Higher Still system meant that that GSVQs ceased to be independent from 1999/2000 (cf. SQA 1999a; 1999b and Pilz 1999b). In the Higher Still system they nonetheless appear in a different form, as part of the Scottish Group Awards for instance, and are particularly well suited to form the basis for investigation of lines of development.

join and leave a GSVQ programme when they liked was closely allied to this dependency on a place of learning: students were bound by what the colleges provided, which was usually simply a linear succession of GSVQs over one academic year. However, since the modules directly built on one another, it was frequently not even possible to join or leave during a year. Moreover, it was necessary to have taken all modules in order to pass the final examination, which further restricted flexibility of participation.

If the indicators of the modular approach are now looked at as a whole (see Fig. 4), it is evident that GSVQs are clearly moving away from a pure modular approach and towards a mixed approach.

A mixed system is suggested not only by the indicators at system level. The underlying educational philosophy also reveals a move away from that of a pure modular approach. Partial adoption of elements of the occupational approach is evident particularly in the priority given to a comprehensive and complex range of skills in GSVQs, both from a structural standpoint and in the assessment of students. There is therefore no evidence of any predominance of the teaching of partial skills or of any orientation towards extremely specific skills for a narrowly defined range of jobs in the educational philosophy underlying the GSVQs.

Fig. 4

Presence of indicators of modular approach in GSVQs

Learning units restricted in time and content, and flexible order of learning units	O
Highly standardised objectives, content and testing procedures	X
Output orientation	O
Separate certificate for every learning unit	X
Open access: freedom to join and leave at any time	O
Not tied to a place of learning	O

X = Yes; O = No

New recognised occupations in Germany as an example of a move away from a rigid occupational approach

Since 1997, some new recognised occupations have come into existence in Germany, and these demonstrate previously unknown degrees of flexibility. Occupations in the fields of information technology, the media and laboratory work differ, however, in the actual degree of flexibility (Dybowski 2000). The new structure of laboratory training in chemicals, biology and paints as from March 2000 will be presented here by way of example (cf. Bundesminister für Wirtschaft und Technologie 2000; and Reymers 2000).

The training is divided into three different skill areas. Six different integrated skills, such as safety at work, environmental protection and work organisation and communication, are taught throughout the entire training course, normally lasting 3.5 years, in all three laboratory occupations, albeit in varying breadth and depth. In addition, specific skills are compulsory for each occupation. These are indispensable if students are to acquire comprehensive operational competence, and they are taught largely during the first half of the course. Seven different areas of compulsory skills are laid down for laboratory trainees working in biology including, for example, how to carry out tasks in microbiology and molecular biology, and diagnostic tests.

The third area of skills relates to optional units, which are taken in the final third of the course and must be chosen from among a wide-ranging list of job-specific and more general skills. In the job-specific section, work in botany or parasitology is, for example, among the minimum of four and maximum of six optional skills laid down for laboratory trainees working in biology. In the general section, at most two skills may be chosen, e.g. the uses of chromatography or familiarity with quality management.

Despite the possibilities of choice, stress is laid on the teaching of comprehensive operational competence, and intermediate and final examinations remain an in-

Fig. 5

Presence of indicators of occupational approach in new arrangements for laboratory training

Overall syllabus, linear arrangement of elements of learning	O
Relative freedom of choice in objectives, content, methods and testing procedures	X
Learning process linked to learning objective	X
Certificate at end of course	X
Restricted access, subject to certain conditions, and right to leave indirectly subject to certain conditions	X
Not tied to a place of learning	X

X = Yes
O = No

tegral part of the new training arrangements. However, the optional skills selected are taken into account in the trainee's final examination.

If the indicators of an occupational approach are applied (see Fig. 5), the only shift away from the typical characteristics that can be seen is the greater freedom to choose which skills are learnt. A degree of specialisation in abilities and knowledge is available where practicable and within the competency of the training enterprise. Some account may also be taken of the particular interests and inclinations of the trainee. All other aspects remain as they were, however. It is, for instance, not possible to take a test or receive a certificate in an individual skill, and it is still a compulsory requirement to enter into a training contract. This governs some of the key features of the occupational approach.

No differences can be seen in educational philosophy. The regulations even refer explicitly to training to carry out a recognised occupation, including the capacity to plan, work and check one's work independently (Bundesminister für Wirtschaft und Technologie, 2000).

Conclusion

The two approaches to modernising vocational training described above may be analysed using the indicators established. In the case of Scotland, the GSVQs are found to represent a retreat from a radical modular approach.([3]) The greater flexibility in the new German training arrangements, on the other hand, suggests a move away from a rigid occupational approach. Whether it can be assumed from this that vocational training systems are converging is questionable, however, given the fundamental differences in education systems, and will depend on longer-term developments. Careful observation and thorough analysis of the various European approaches to modernising vocational training can nonetheless provide useful pointers for future developments and can suggest how mistakes may be avoided in each country.

([3]) EA comprehensive analysis of all Scottish education and training programmes including the new Higher Still system shows a clear retreat from what used to be a radically modular approach (Pilz 1999a, pp. 145-156).

Bibliography:

Blossfeld, Hans-Peter (1994), Different Systems of Vocational Training and Transitions from School to Career - The German Dual System in Cross-national Comparison. In: CEDEFOP [Ed.], The Determinants of Transitions in Youth, Berlin, pp. 26-36

Bundesminister für Wirtschaft und Technologie (2000), Verordnung über die Berufsausbildung im Laborbereich Chemie, Biologie und Lack vom 22.03.2000 [printed in the Bundesgesetzblatt Teil I, p. 257 of 29.03.2000], Bielefeld

Connelly, Graham (1999), Curriculum Development in Further Education. In: Bryce, Tom G.K.; Humes, Walter M. [Eds.], Scottish Education, Edinburgh, pp. 594-604

Deißinger, Thomas (1994), The Evolution of the Modern Vocational Training Systems in England and Germany: a comparative view. In: Compare, Vol. 24, No. 1, pp. 17-36

Deißinger, Thomas (1996), Germany's vocational Training Act: its function as an instrument of quality control within a tradition-based vocational training system. In: Oxford Review of Education, Vol. 22, No. 3, pp. 317-336

Deißinger, Thomas (1998), Beruflichkeit als 'organisierendes Prinzip' der deutschen Berufsbildung [Wirtschaftspädagogisches Forum, Vol. 4], Markt Schwaben

Dybowski, Gisela (2000), Dynamisierung und Gestaltungsoffenheit der beruflichen Bildung. In: Personalführung, Vol. 33, No. 7, pp. 16-22

Howieson, Cathy (1992), Modular Approaches To Initial Vocational Education And Training: The Scottish Experience [A Report for the Petra Research Programme], Edinburgh

Murray, Jim (1997), General Scottish Vocational Qualifications (GSVQs) in Relation to the Six Themes of the Post-16 Strategies. In: Lasonen, Johanna [Ed.], Reforming Upper Secondary Education in Europe [Institute For Research. Publication Series B, Theory into practice 92], Jyväskylä, pp. 219-223

NCVQ [National Council for Vocational Education] (1995), Your introduction to NVQs and GNVQs, London

OECD (1987), The Organisation and Content of Studies at the Post-Compulsory Level –Country Study: Scotland, Paris

Pilz, Matthias (1999a), Modulare Strukturen in der beruflichen Bildung -eine Alternative für Deutschland? –Eine explorative Studie am Beispiel des schottischen Modulsystems [Wirtschaftspädagogisches Forum, Vol. 9], Markt Schwaben

Pilz, Matthias (1999b), Die Modularisierung des schottischen Bildungssystems – Aktuelle Entwicklungen auf dem Weg zu einem einheitlichen System von allgemeiner und beruflicher Bildung. In: Die berufsbildende Schule, Vol. 51, No. 10, pp. 329-334

Raffe, David (1988), Modules and the Strategy of Institutional Versatility: The First Two Years of the 16-plus Action Plan in Scotland. In: Raffe, David [Ed.], Education and the Youth Labour Market: Schooling and Scheming, London, pp. 162-195

Reymers, Margret (2000), Neues Strukturkonzept in der Laborausbildung im Bereich Chemie, Biologie, Lack. In: Berufsbildung in Wissenschaft und Praxis, Vol. 29, No. 5, pp. 5-8

Scotvec [Scottish Vocational Education Council] (1996a), Catalogue of National Certificate Modules session 1996-97, 14th edition, Glasgow

Scotvec [Scottish Vocational Education Council] (1996b), Catalogue of Specifications for GSVQs National levels I, II and III -Session 1996-97, 4th edition, Glasgow

Scotvec [Scottish Vocational Education Council] (1996c), Guidelines on the new GSVQ additional assessments, Glasgow

SQA [Scottish Qualifications Authority] (1997a), SVQs –A User's Guide, Glasgow, Dalkeith

SQA [Scottish Qualifications Authority] (1997b), SVQs –The competitive edge, Glasgow, Dalkeith

SQA [Scottish Qualifications Authority] (1999a), Qualifications for Life, Glasgow, Dalkeith

SQA [Scottish Qualifications Authority] (1999b), A Framework for Lifelong Learning –A Profile of the Scottish Qualifications Authority, Glasgow, Dalkeith

SQA [Scottish Qualifications Authority] (1999c), Higher Still Update –Higher Still phasing. In: ontrack –The SQA Newsletter for Training Providers, No. 4, p. 4

Steedman, Hilary; Mason, Geoff; Wagner, Karin (1991), Intermediate Skills in the Workplace: Deployment, Standards and Supply in Britain, France and Germany. In: National Institute Economic Review, No. 136, pp. 60-73

The Federal Minister for Education and Science (1992), Vocational Training in the Dual System in the Federal Republic of Germany, Bonn

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Bridging the gap between theory and practice in Dutch vocational education

Teachers and students in vocational education often state that it is difficult to link knowledge gained in school with new insights and experiences encountered in practice. There is not enough time to report on problems that occurred and to discuss solutions. There is also no time available to go back to the theory behind any given topic once students attend school. In most instances students do not even hear about the others' traineeships and teachers are not able to give proper feedback to everyone. In this project, students in vocational education were provided with facilities to communicate with each other during their traineeships and to collaborate on similar assignments by means of a computer-supported collaborative learning environment. This paper gives students' and teachers' assessments of this new learning tool.

Introduction

In 1996, the law on vocational and adult education was enacted in the Netherlands. In this law strong emphasis is placed on learning from practical experience. Because of this emphasis, the place in which the on-the-job training takes place has become more important. Context-based learning in a situation in which the student has to deal with authentic problems is related to constructivism (Duffy & Jonassen, 1992). In accordance with this theory, students learn in practice, in a real world context. In Dutch vocational education graduates from lower general or vocational secondary schools of about 16-20 years of age can choose two different routes:

- in the first route, students attend school, and work during some practical periods, like on-the-job training or traineeships;

- in the second route, students start working in a company and add theoretical knowledge by attending school one day a week, like in an apprenticeship scheme. In both cases they have the possibility to elaborate the knowledge they gained in practice and, conversely, they have the possibility to use school knowledge in authentic situations.

The focus of this exploratory project is, on the one hand, on how to help students communicate and collaborate with each other, while not doing so at school, and how to optimise the link between theory and practice, on the other. Because students spend a vast amount of their school time outside the classroom, a solution must be found to keep the students 'together'. By using a computer-supported collaborative learning (CSCL) environment, it is possible to create a virtual classroom while the students work at different companies. School and work are then linked to each other.

The possibilities of CSCL

Research by Hewitt (1996) and Scardamalia and Bereiter (1996) in which CSCL classrooms were compared to traditional classrooms, showed that working with this kind of environment had positive effects on intentional and collaborative learning. As well as this project, they used WebCSILE, a problem-centred, collaborative workspace accessible via the Internet. WebCSILE is based on CSILE, a computer-supported, intentional learning environment designed by Scardamalia and Bereiter (1989). Besides WebCSILE some classes in this project made use of the webKnowledge Forum (WebKF), the successor to WebCSILE. The CSCL environment is intended to give students the opportunity to describe their experiences and start discussions. Communicating with each other like this can take place in an asynchronous mode, while at work or at home. In addition to this, by sharing experiences and discussing problems, students can start to work and learn together. Exchanging ideas and developing arguments is expected to enable students to gain a deeper insight into the matters they are discussing; by describing what they

think, the students become more aware of how they solve problems and, consequently, they gain both cognitive and metacognitive knowledge. According to Scardamalia & Bereiter (1996, b), when knowledge building starts to be the goal, the students will be capable of recognising what they need to learn. After some time they will take a more active role in learning and take more responsibility for the things they want to learn.

Knowledge building with CSCL can begin in the classroom with an introductory lesson. After this lesson it must be clear to the students what the final learning goal is, for instance; solving a problem on growing crops in a very dry climate. They also need to know by then whether the topic has to be subdivided into several (sub) areas. Each of these sub-areas can be explored by formulating questions that will be answered by means of a collaborative attempt to gather and exchange relevant knowledge. To build knowledge on a specific topic all kinds of resources can be explored: books, newspapers, television, experts, and so on. A learning culture has to evolve in which knowledge building becomes the responsibility of each participant in the class (students and teachers). Everyone gathers information in order to write in the database, and they write to share their knowledge with the others.

While working and learning together using CSCL, students interact via the computer. The database keeps track of what is being written, it keeps the files up to date, making it possible to study the process of knowledge building. The data can be analysed for links between the messages written by the students. These messages are referred to as notes. An analysis of the patterns of notes shows who writes which messages to whom. Teachers and students have to agree upon the roles of both students and teachers in such a process. In this project an attempt has been made to find answers to the question as to how to implement the environment within the educational context, and how collaboration between students via a CSCL environment can be enabled and sustained over a certain period of time. Also, attention was paid to whether and how school knowledge and practical experience were integrated.

Overview 1

The research process

2 Pilots - about conditions
2 x 76 students participated; one group for each study route
Teacher training
Guidance of teachers
10-week courses, followed by groups of about 10 students
Student instruction about research project
1 monitoring teacher per group
Analysis of notes with ATK
Student and teacher evaluation

Research process

An overview is given below of the research process. This overview will be explained in the next sections of this contribution.

Procedure

After two pilot projects, in which information was gathered about several conditions (for example the facilities the students would need to be able to log in from their home addresses), 76 students from both routes mentioned in the introduction participated in the project. Groups of about ten students attended different ten-week courses and every group was monitored by at least one teacher. Only students who had access to a computer at home could participate. If they did not yet have access to the Internet, they received a trial subscription paid for by the school. To keep telephone costs under control, the students were instructed not to work over thirty minutes each day (they were reimbursed for these expenses).

Teacher training

Before the experiments started, the teachers were offered training focusing on the collaborative learning and learning communities, how to use WebKF and its possibilities (both technical and process oriented), how to start and sustain a collaborative learning process, and how and when to intervene. A framework consist-

ing of several steps was offered to the teacher as a guide to making assignments. This guidance consisted of four steps leading to a final assignment (based on the Maastricht PBL, Van Til & Van der Heijden, 1998). If problems occurred, the teachers and researchers discussed them and, where possible, solved them as a team.

Student training

Most teachers participated more than once (both in pilot and follow-up experiments). When the teacher became involved in an experiment for the first time, the student training was taken care of by the researcher. Every second or subsequent experiment, the teachers themselves instructed and trained students. At the beginning of the training, students were told about the research project. They were told that this research was conducted to provide an answer to the question as to whether CSCL could optimise the link between theory and practice. Also the idea of collaborative learning was explained, and how collaborative learning can be facilitated using an electronic learning environment. The most important goal of the training was to make the students familiar with the environment, so that they would be able to use it at home.

Evaluation

The analytic toolkit (ATK) was used to analyse the databases. This toolkit is a set of programs that are designed to give overviews and summary statistics of the notes, views and activities in a (web)KF database (Burtis, 1998). The ATK can provide quantitative information on the databases.

An evaluation form was used to survey the experiences made by students using WebCSILE or WebKF. Students could describe findings on the environment and Internet, support of the learning process (training, assignments, interventions, and technical and motivational support during the experiment), collaboration with classmates, and some questions on linking theory and practice. The teachers were asked to complete an evaluation form too. They were asked to describe their idea of collaborative learning, their expectations about the use of CSCL, in order to make collaboration possible while the students were out of school, their experiences and their ideas for the future.

Results and conclusions

The ATK provided a huge amount of information. All participants together (students and teachers) produced 764 notes (of these, the teachers produced 107 notes). From these notes, 46% were first or new notes, meaning they represent communication that was started on a topic; other notes were isolated. In fact 197 notes were isolated; when just looking at the threads in the database, nobody seemed to react to others' notes, or to build on the debates of reactions of others. They seemed to be separated remarks of various kinds. Of course, a closer look at the content of the notes may change this perspective, because a visually isolated and seemingly isolated note can appear to be closely related to another one when the content of the notes is taken into account. Nearly every login started with reading the others' contributions. The notes that were read most were those of the teachers (especially assignments were read over and over again, sometimes up to ten times spread over the total length of the experiment), and notes students produced themselves.

Collaboration in groups is related to collaboration in an electronic learning environment

Looking at the groups, differences became apparent. Students from groups who knew each other from class, and had to work on similar assignments, read and wrote on a regular basis in the learning environment. They exchanged information and experiences and worked together on solving practical problems. Students attending school just once a week, and who hardly knew each other, did not feel the necessity to collaborate. They were not used to doing this, and felt no need to do it now. Other students made use of the learning environment already within the classroom, working on an assignment in order to get to know the functionality of

the discussion platform, and to get used to collaboration before leaving the school for their internship. They preferred to communicate verbally instead of writing in the database. This leads to the conclusion that there seems to be an optimal level between face-to-face and computer-supported collaboration; the CSCL environment offered the possibility to collaborate with classmates all working in different firms and being confronted with authentic problems. Students who did collaborate were very enthusiastic about this possibility. They mentioned that they learned from the others' contributions (these provided new information, created new ideas and perspectives), and felt more motivated to explain their own strategies and findings. But students in the same room and working on relatively easy problems, felt that the computer did not provide a relevant opportunity. And also when they had hardly collaborated before, the mere presence of the electronic learning environment did not make a difference.

Time investment - teacher and student perspectives

Both students and teachers were asked to invest a significant amount of time in the experiment. They had to log in regularly to keep track of all the contributions. The students felt it was no additional effort however; they no longer had to submit an essay on their internship afterwards. Furthermore, they felt better prepared for practice. Teachers now (more than before) knew what the students met with in practice and could therefore better support them. They perceived the environment as being supportive, although they also felt the need to put a lot of effort into sustaining the collaboration. This effort, though, seems to be necessary. Based on both the evaluation forms and the data gathered from the databases and the ATK, a connection was perceived between the role of the teacher in the database, the amount of notes the students wrote and their reports about the amount and the quality of the collaboration. The less a teacher participated, the less activity the students showed. This relationship is elaborated in another paper (Lutgens, Biemans & De Jong, 1999).

Connectivity

Another positive effect was students feeling more closely connected to the school than before these practical training periods. They said they had used school knowledge more often than before while at work, and learned more from their experiences because of discussing problems with others.

Advantages of the opportunity to use ICT

Although collaboration was not always that fruitful, having the opportunity to use information and communication technology as a means to learning and working together as such was perceived as being valuable. Consulting others, knowing when and how to address others when knowledge is not sufficient, combined with the development of several competencies (to communicate, to search and collect relevant information and knowing how to use knowledge and experiences from different perspectives to transfer to new situations), are all positive side effects of the use of CSCL.

In spite of the obstacles which had to be overcome in the beginning (such as poor computer infrastructure, making teachers willing to try new pedagogical concepts, spending a lot of time implementing the software, training users and supporting the learning process), almost everybody who participated in this project stated they were interested in using this or a similar electronic learning environment during internships again. Teachers stated they had better possibilities of monitoring students, students said they could communicate and collaborate with each other. They felt more closely related to school during internships.

References

Burtis, J. (1998). *Analytic toolkit for Knowledge Forum*, specifications.

Duffy, T.M. & Jonassen, D.H. (1992). Constructivism: new implications for instructional technology. In: Duffy, T.M. & Jonassen, D.H. (eds), *Constructivism and the technology of instruction. A conversation*. Lawrence Erlbaum, Hillsdale New Jersey

Hewitt, J.G. (1996). *Progress toward a knowledge-building community.* Thesis University of Toronto, Graduate department of Education.

Lutgens, G.M., Biemans, H.J.A. & Jong, de F.P.C.M. (1999). *Op weg naar een coachingmodel: de rol van de docent in een samenwerkend-leren-proces*. [Heading to a coaching model: the role of the teacher in computer supported collaborative learning]. Paper presented at the Dutch Educational Research days (ORD), 20-21 mei 1999, Nijmegen, The Netherlands

Scardamalia, M., Bereiter, C., McLean, R.S., Swallow, J. & Woodruff, E., (1989). Computer supported intentional learning environments. *Journal of educational computing research, 5,* 51-68.

Scardamalia, M. & Bereiter, C. (1996). Adaptation and understanding: a case for new cultures of schooling. In S. Vosniadou, E. de Corte, R. Glaser & H. Mandl (Eds). *International perspectives on the design of technology-supported learning environments*, 149-163. Hillsdale: LEA.

Scardamalia, M. & Bereiter, C. (1996, b). Student communities for the advancement of knowledge. *Communications of the ACM, Vol.39,* 4, 36-37.

Til, van C.T. & Heijden, van der F. (1998). *Studievaardigheden PGO. Een overzicht*. [Study skills in problem based learning. A review.] Maastricht: Universitaire Pers.

Work experience and the curriculum: illustrations from Spain

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This article focuses on the place and status of work experience as a means of training in Spain since 1998. It presents the official view on the role of company-based training and its limits. It also shows, on the basis of two case studies, the rich results of work-based learning, both in terms of job-related training and in terms of acquiring generic and social skills – or even as a medium for general education.
The article shows what conditions are necessary for the success and development of this type of teaching and argues that it is necessary to integrate work experience into training programmes. This is something the Spanish educational establishment does not seem close to achieving, as it has failed to obtain the necessary material and human resources.

Introduction

The context of research

This paper shows some aspects of the Spanish contribution to the TSER project entitled 'Work experience as an education and training strategy: new approaches for the 21st century', contract no. SOE2-CT97-2025. This project dealt with the educational value of work experience, and some its outcomes have already been published in book form (McKenna and O´Maolmhuire, 2000; Marhuenda and Cros, 2000; Marhuenda, Cros and Giménez, 2001), while other books are still in preparation and chapters under revision.

The research partners come from England and Wales (UCL/Institute of Education, University of London), Sweden (Kristianstad University), Ireland (Dublin City University), Spain (University of València), Denmark (Copenhagen Business School) and Hungary (National Institute of Vocational Education). Given the different backgrounds of the partners, several perspectives were taken into account in the process of the research, varying between psychology and curriculum studies to sociology as well as business studies. All of them, however, seem to meet with the nature and scope of learning processes at work that people develop as students.

The research focused on the 16-19 age group and examined the purpose, the assumptions about learning, the practice and outcomes of work experience. The research group worked on three different interrelated arenas: firstly, literature reviews – both country-based as well as academic. Secondly, the analysis of policies regulating work experience for that age group in the partner countries. The review of policies in partner countries was carried out in 1998 and then revised in 2000. Thirdly, an analysis of relevant practice of work experience schemes. Some institutions were selected as case studies in each partner country and the results of two of these will be presented here. Some pedagogical features of work experience modules under these vocational training initiatives will also be shown and discussed in this paper. The two institutions are in a very good position to approach the issue whenever there is a crisis between the educational and the economic systems, as shown elsewhere (García, 1997; Aparisi *et al*., 1998; Martínez and Marhuenda, 1998). Because of their educational perspective, both institutions offer an opportunity to see how to approach quality in education not only from the perspective of finding a job but mainly of fulfilling human rights to education and to work (Simon, 1991; Hart, 1992; Connell, 1997; Marhuenda, 2000). This is considered by both institutions as educational success, and is understood as a means towards social integration, also in terms of having a job.

Our approach

Our approach focuses on the value of work experience as a mode of learning and indeed, as a way of dealing with training and delivery; therefore as a curricular construction. However, I see this mode of training/learning as one which is not new, but as one that has persisted for centuries and, more importantly, which has resisted the historical transformations of different modes of production, from the artisan guilds right up to industrialization and, as is claimed by some, into the post-industrial era. Studying these transforma-

tions by applying a similar analysis to that of Lundgren (1992) for the curriculum in the formal educational systems is a task worth undertaking, despite being too extensive for the purpose of this paper. However, it is necessary to develop it in order to counter the worldwide notion that there is a challenge to educational institutions set by their failure to respond to the demands of the economic systems. That idea is simply false, as Lundgren shows, because this relationship was destroyed long ago with the development of national educational systems. It is other crises we are facing nowadays, which basically affect the capitalist mode of production, and it is the intention of those ruling it to make us believe education is to be blamed for its problems. This happens whenever educational success is measured by the effectiveness in finding a job and not by the extension to which individuals' rights to cultural and personal development are fulfilled.

In this paper, I will consider the role of work experience in the light of the educational rationale and policies of both institutions. I will attempt to address the weight given to work experience as well as its aims. Whenever there is an educational purpose in the provision of work experience, this will become clear, not only through the experience itself but also through its curricular shape. In the construction of a curriculum, work experience takes into account both alternative modes of training and learning, while modes of production are also incorporated into the educational intervention.

We strongly believe that the educational actions and relations which take place at the workplace have a significant impact on the knowledge developed and acquired by students, which is then reflected in the formation processes of occupational identities by both workers in general and specialists in particular, consequently as citizens as well. This is, however, something that has been neglected by current policies on work experience, as our policy studies have shown.

Some of these assumptions are being tested by the case studies, that is to say an attempt is being made to match different work experience schemes through occupational areas, trying to find the common aspects which are occupation related, as well as trying to identify cross-professional elements which have to do with the constructions of work nowadays and are thus relatively independent of the occupation.

Approaches to learning from work experience

It is here that we approach the object of study – work experience – as an educational practice which can be set against relevant literature on curriculum codes (Lundgren, 1992; Bernstein, 1997, 1998) and curriculum regimes – or curriculum models or rationales (Tyler, 1973; Stenhouse, 1984).

The interest in doing so is twofold. First, approaching the processes of education in a formal – or codified – way but outside of the school. Whereas the notion of curriculum has been basically applied to the educational system, work experience either in formal or non-formal education is embedded nowadays in a curricular framework. Second, approaching curriculum issues from the specific point of view of vocational education rather than academic education, therefore decentring the educational processes from the academic world and analysing them in the light of the world of work, where formal education ends to let continuing education start upon a solid basis. The terminal role of education here is prior to the propedeutic role it has elsewhere, even at the levels of higher education.

Further issues arise here which are also worth paying attention to, such as the relations between modes of production and modes of processing, namely the connections between work and knowledge, action and thinking, or practice and theory. Some (Boud, 1989; Reckman and Van Roon, 1991) have already looked at similar issues but in different levels of the educational system. In the end, these are the questions underlying curriculum theory: how to make hope happen, to paraphrase Lundgren (1983).

From here we move, then, into the organisational issues of work experience which go far beyond the traditional chap-

ters in the literature on the issue: the pedagogical arrangements for teaching and learning work at work. This is the reason why a stronger approach to the definitions of learning given by Vigotsky, Piaget or Bruner are needed, combining them in a somewhat different way to that developed by Kolb (1984) or Marsick (1987). Work developed by Argyris and Schön (1982) or by Schön (1983, 1987, 1991) himself is also important, as well as Eraut (1994, 1998).

Our suggested modelling of work experience (Marhuenda, 2001) relates to the different learning theories, and may make us rethink the sequence of work experience as a series of phases through which the student in a work experience scheme develops. These demand different student-teacher-instructor relationships, varied assessment procedures, a different emphasis on different contents of learning and, as a whole, a growing consciousness of the world of work and education and, therefore, of the world itself in its broadest sense.

All of these may be only achieved, though, if we take into account, as Gimeno (1988) suggests, that work experience is subject to curriculum regulations and processes of design and development at various levels, and is not only left to the role of teachers in curriculum design. Moreover, given the role of the workplace as an outsider to the educational system, the processes of curriculum design are embedded by external influences that affect the current development of the curriculum (Lipsmeier, 1978; Peege, 1987, 1988).

Work experiences in Spain: policy issues

Different evaluations have been carried out since the late 1980s: Bou (1988, 1990), MEC (1990, 1994), Departamento de Educación, Universidades e Investigación del Gobierno Vasco (1990), Zabalza (1991), Álvaro (1993), Marhuenda (1994), Guillén (1998). To a certain extent these may be considered as quality assurance mechanisms as well as part of a revision process. However, most of them have to be considered as internal evaluations of the reforms taking place, to as an assessment of their level of implantation and the extent to which they are following the regulations guiding them. Yet very few of these have attempted to evaluate processes and contexts that support learning based on work experience. In this sense, the approach is more that of a 'follow-up' evaluation taking into account organisational aspects of work experience, rather than a revision of the rationale and aims of work experience itself.

Workplace training has been part of Spanish education since the mid-80. This period of training in the workplace (previously called "practicas en alternancia") is considered to be a highly beneficial resource for the students. Current studies show that students are highly satisfied to be going to work as trainees in companies, and workplace training is a highly valued resource. Businessmen consider the students to be a well-trained source for recruitment, while students are able to familiarise themselves with the business world, and may be able to get a job after a period during which, apart from learning, they were in contact with potential employers. For them this is something real and useful which will bring results in the near future by improving their chances on the job market. They move from simulations in the education centre workshops to actions as real and valid as those the actual company workers undertake. For them this experience is very positive, since it means putting into practice all they have learned in the classroom and the workshop. This reinforces the instrumental approach we mentioned above.

Not only the students but also the teachers and other actors involved identify a number of advantages in this workplace training period. The world of education and the world of work come into contact and are mutually enriched. The students not only put into practice the theory learned in the classroom, but they are also immersed in the world of work, encounter real situations, and discover the culture of the world of work in general and that of the particular company. Educational value is inherent in the very contact between the school and the company, independent of the nature of such a contact and of features such as the process, the specific workplace and the students' previous experience.

While in the company the student remains a student, in a learning period, and under the tutelage of a member of the company who follows the student's progress, acting as a guide within the company, and dealing with any questions the student may have. This means that the tasks the student is to carry out in the company need to be defined, and that a tutor be designated to take responsibility for the student's learning within the company. An important aspect here is that of planning the formative programme of the placement. This is basically the responsibility of the school tutor, and instructors from the companies only exceptionally take part.

In this way, apart from the tasks related to the particular speciality studied, the student will be able to learn about the functioning of the company, its culture, the unions, the rights and responsibilities of workers, working hours, customer relations and so on. The student's behaviour during the workplace training period should be the same as that of the rest of the workers, as far as the rules are concerned. That is to say, they have to adapt to all the conditions, even though the hours, the relationships, the days worked and so on may be different to those of the education centre. The students receive no economic remuneration – this has not changed either. They receive travel allowances, in relation to the distance from their home to the company.

There is a collaboration agreement that contains, among others, the following points: the situation of the student in the company is not a labour relationship, all contingencies are covered by insurance (school and governmental), the student receives no salary, nor is the business obliged to pay, though in some occasions "tips" are given to trainees.

Another aspect that has not changed is the timing of the workplace training period, which is at the end of the training period in the education centre. It seems logical – from the instrumental perspective held by the educational administration – that the workplace training takes place when the student has learnt all the theory. We are not so sure about this. Underlying such an approach – the terminal location of FCT – there is a restrictive notion of both theory and practice as well as a schematic and poor approach to relations between them. The workplace may generate reflection and theory on the working process, the most adequate skills to perform, the reasons behind them, as well as the role of the worker in the company. The school may offer skills acquisition, operational procedures may be learnt, solving problem situations, communicational skills practiced, learning to work in groups, etc.

Case studies show that it helped students to have meetings with their classmates and their tutors at the education centre during the workplace training period. In these meetings conflicts, and questions can be dealt with, the students can comment on their experience within the company, and compare their situation with others, to sum up, it enriches the training experience because it allows improvements to take place during the workplace training period. Obviously, if these meetings are so helpful, the trainee period could take place some time before the end of the training course, and the final period could be used to finish off the training, rounding off the training that has taken place both in the classroom and company.

The workplace training takes place at the end of the period because one of the objectives is to complement the training that takes place at the education centre, while also trying to facilitate the students' insertion into the labour market. As our research shows, this complementary feature would occur even if the trainee period were not at the end of the course, and there would be added advantages: there could be a review of the problems that arose, how they were solved, how decisions were taken, certain skills could be perfected, and certain particular difficulties addressed. It is an opportunity to correct errors and improve on successes, apart from its usefulness in the planning of the rest of the course according to the results of the workplace training period. Two other main objectives of the workplace training period are: (real) incorporation into a business organization, and the evaluation of the professional competence of the student in real work situations. These objectives are not incompatible either with the idea of the workplace training period taking place before the

end of the course. It may be that the organization of the workplace training period may not allow it, however, since getting in touch with companies is time-consuming and – with holidays halfway through the organization process – it would be more complicated to keep in touch with the businesses that are to receive trainee students. An extensive distribution and location of FCT like the one we suggest would probably betray, or it would at least hinder, the terminal and instrumental aim of FCT as well as making the administrative management of the work experience even more complicated.

The process of organizing the training periods is long and costly. As the years pass, the process improves, because the tutors responsible for the management of the workplace training periods can learn from the experience of previous years, there are also companies that want to repeat the experience, which reduces the number of new centres to be found, and companies are realising that it is beneficial to have these students so are collaborating more and more. Another problem that remains unsolved, dating back to 1998, is that of providing enough placements once the new system of formal vocational education is generalized.

A tutor and a company instructor are designated, in order to follow the progress of the trainee student. They are responsible for the design of the students' programme of training activities in the company. The collaboration between those involved is important in order to coordinate the development of the programme. The function of the student in the company must be made clear in order to avoid possible abuses (dogsbody, cheap labour, etc.). The problem that often arises is that the company instructor does not know how to teach the student.

Given this problem, there are now some isolated initiatives that aim to deal with the pedagogical training of these company instructors. In some autonomous communities there have been collaborations between the regional education authority and the association of chambers of commerce. The objective of these collaborations is to develop training courses for the company members who are to be in charge of the trainee students. These workers are fully technically trained and capable, but they do not have the minimum pedagogical knowledge base necessary for the tutelage of the students. This is a recurrent problem all throughout Spain. School tutors, for their part, work in pretty hard conditions: an excess of responsibilities, scarce time, and institutional constraints. The educational administration reacts to this situation with indifference, avoiding the debate set on the table by teachers unions on the need to define the role, training, requirements and others to become a work experience tutor.

We will add finally that workplace training periods are the best form of transition from school to company: they are the best job-finding tool for students, opening the first door to experience, and they allow students and companies to get to know each other. But they do have a risk in the medium to long term: there are more and more educational environments that require workplace training periods, and therefore more students to be placed (be they vocational training, "social guarantee" programme or university students) than places available. This is a problem, like so many others, which will have to be solved if we are to improve the quality of the workplace training period.

It is important to give these current problems of workplace training periods due attention, since they are a very valuable resource for the improvement of the students training. It can also provide opportunities for the positive evolution of the current situation of vocational training students. If the time, money and human resources really needed were provided, the development of this module would be fairly significant, and as a consequence, so would the development of students and companies.

In an evaluation of workplace training periods, the final conclusions indicate that the workplace training module, since it brings the educational system and companies into contact, is a highly valued resource. While businessmen have the opportunity to train people who in the future might become employees, the students are faced with the world of work and learn in and from it, as well as spend-

ing time in contact with prospective employers.

An evaluation of current policies.

Over these years of research we have not observed any changes in the trainee periods, and we have noticed that not all is being done that could be done to improve the situation, as opposed to changes that have been minor variations between autonomous communities. There is a development and expansion of workplace training, but policy and administration have not changed. What has changed is practice, since experience improves the management and development of workplace training periods year after year. But the paralysis of the administration is an obstacle to more substantial progress, because the legislation limits the areas in which training centres can act, and this inflexibility hinders adaptation, diversity and flexibility. The basis of the problem is a clash of interests, which makes each actor involved defend only their own interests. The workplace training module is aimed at students, who are in principle the main protagonists. Workplace training should have as its principal objective the training of students, though there may be benefits for other parties. Only by thinking exclusively of the student will we reach an appropriate situation in workplace training.

This is but ingenuity: work experience programmes are not designed as having the students and their needs in mind. They are considered, reformed and improved upon considerations of social and labour roots (work transitions, human resources). These are utilitarian functions that generally ignore educational considerations.

Some of the worries of professionals involved in workplace training were collected from the workgroups formed at the November conference. These include:

❏ The incorporation of workplace training corresponds to a juxtaposed model, since they are concentrated at the end of the training process, and have little relation to the rest of the material. This makes them the last activity the students participate in before leaving the training centre. All the groups pointed out the educational potential for traineeships that were fully integrated into the curriculum, as long as they did not affect the students' job-finding opportunities.

❏ There was generalised anxiety about the excessive importance given to conceptual knowledge in the current education legislation (LOGSE), to the detriment of procedural and attitudinal knowledge. The latter two, however, are keys to the employability of students, given the internal restructuring processes many companies and jobs are undergoing. This problem is not so marked in "social guarantee" programmes, since here more emphasis is placed on the development of skills and attitudes.

It is emphasized that workplace training should involve educational, training and personal development functions. For this reason there should be effective coordination between tutors and instructors, with a view to the integration of the student in the company, and the coherence that a training programme should have. There is also an important motivational function, which gives strength to the training and personal development value of this module. The model involving workplace training that is an integral part of the curriculum should facilitate the job-finding function. The training function is of vital importance, and it is recognized that SMEs give more support and attention to this function than large companies.

❏ The role of the tutor or instructor implies both training and management tasks, which is why an equal distribution of effort and dedication is suggested. If there is a previous trainee student now working in the company, it is of vital importance to assign the role of tutor to this person, because of the training-centred attitude that they tend to adopt, as well as the motivation this gives the student.

Many other subjects were dealt with:

❏ The different recognition given to workplace training depending on whether it is part of vocational training or "social guarantee" programmes.

❏ There are also differences in the attention and resources assigned to the organisation of workplace training.

❑ It was mentioned that it would be interesting, given the variety of interests, needs, and possibilities of students, to establish variable durations of workplace training periods in companies.

All this shows that there is still much to do, that there are many demands that are not being attended to, and that those most fully involved and aware of this are education professionals. What is needed is that the solutions to these problems be applied. While workplace training is controlled by economic and political interests, rather than educational considerations, progress and improvements will be slow, despite the research we may be carrying out.

Innovative work experience: two case studies

Associació S.F.L. prestadora de serveis a la joventut 'Iniciatives Solidàries'.

Iniciatives Solidàries is a non-profit organisation whose basic aim is to provide vocational training to young people who are out of the educational system for several reasons. It has been working for more than 10 years now, with previous experience in the same field as part of a larger association from which it is detached.

In order to accomplish its goal, it develops a wide variety of formative actions in different locations in Valencia and its surroundings, based upon funding from different autonomous and European funds. By doing so, it has managed to establish different itineraries for young people, thus avoiding erratic pathways, which hinder reintegration in society. The core of the actions is therefore to be found in the young people themselves, taking all of the different actions as a means to help these youths back into normality and to enter the labour market or re-enter the educational system.

Over the last few years Iniciatives Solidàries, together with other associations and institutions, has actively lobbied the autonomous authorities in order to introduce changes in the legislation which made it flexible enough to respond to the demands of the beneficiaries it is addressed to, as well as to facilitate their entry into the labour market despite their lack of educational qualifications.

Iniciatives Solidàries is a member of a European network coordinated by a similar organization in France. This network attempts to develop new and better mechanisms to address the needs of young people out of the school system and socially excluded for a variety of reasons, while at the same time works hard at developing new strategies to provide quality and appropriate training well focused on the beneficiaries as well as finding out new ways to allow them to enter the labour market with a certain degree of stability. Health and safety at work is a very important module of the training provided by the institution.

Iniciatives Solidàries has developed a 'Handbook for work experience'. The aim of work experience is to provide the necessary knowledge, both practical and theoretical, which training in the institution is not able to provide. It is, therefore, an enhancing as well as an educational objective. Through the placement, the institution also seeks to allow the young people entry into the labour market, as work experience is understood as an intermediate step between education and the labour market.

Work experience([1]) has a duration of 100 hours, usually within a month. Its contents are defined, as is the tutorial system, both in the company as in the institution. A daily plan is programmed at the beginning of each working day, and a follow-up once a fortnight. There is also a briefing process before the beginning of the work experience scheme, including visits to all the companies so that all the students get some idea of the placements they might have access to.

There is a new search for companies every year as Iniciatives Solidàries attempts to get a contract for every person once they finish their training. This implies that most of the placements need to be replaced, as companies cannot grow at such a fast pace. Companies are usually fully aware of the main threats facing the young people, but they are sometimes not conscious of some of the disadvantages they may have wherever this may affect the com-

([1]) For more information, see Iniciatives Solidàries (2000).

pany's attitude towards the youth or the scheme itself. However, Iniciatives Solidàries is very careful about to whom it sends a placement, as it attempts to create a good impression in the company to show how – despite bad educational careers – most young people can perform a job satisfactorily. Therefore, the contacts with the company are very well looked after and the conditions of the agreement and the follow-up procedures become an important component within the institution and play an important role in the teacher's activities.

Pedagogical principles guiding the institution planning and educational behaviour are:

❑ activity, participation and guided discovery;

❑ team work;

❑ learning by doing in the educational environment, extensive use of simulated practice.

There is an evaluation meeting with all the students every week. Through work experience Iniciatives Solidàries not only seeks learning knowledge but also the acquisition of such working habits as punctuality, responsibility, communication, and other attitudes which these youths need to improve.

Motivation, self-learning, good manners, patience and so on are other learning outcomes expected from this period within a company.

Escuela La Florida, S.C.V. - Florida Secundaria.

Florida SCV is a cooperativist school whose shareholders are all the employees it has. It was founded in the late 1970s as a post-compulsory vocational school. In the early 1980s it was one of the first schools that volunteered to introduce the experimentation phase of the reform, which was finally passed by law in 1990. It also joined the European Petra programme once Spain joined the EEC in 1986, as the school had been working on transition proposals since its very foundation. It is an active participant of several European projects.

It has greatly expanded over the years, and nowadays has several branches: compulsory secondary school; post-compulsory school which offers both Baccalaureates and vocational education; private university and a continuing education centre.

It has also developed over the years very strong links with the companies in the area, where it finds wide recognition for its quality services. The educational level of the population is also pretty high, having a very good record of cultural activities in contrast to many parts of the country.

Florida aims to provide not only a good occupational training but also to educate the young people by providing them with tools to analyse the socio-economic context, allowing them to successfully enter the labour market either as employed or as self-employed people, thus able to understand and keep pace with the transformations and changes in the labour market.

Its educational project faces the challenge of educating young people in new occupations required by society, with personal attitudes of work management, responsibility, cooperative work, creativity and so on.

The formative cycle that has been contacted as a case study has been offered since 1996. It lasts two years and work experience([2]) takes place at the end of the second year. Some 30 students attend each course, and all of them take the work experience module.

Each student attends a different company for the placement, and each placement has its own individualized programme and assessment guidelines, which are always set up and agreed upon before the student starts attending the company.

Teachers responsible for work experience in the school have attended several training activities related to the organisation and educational development of work experience and alternance training since 1996. The teachers in charge of this formative cycle have prepared a series of documents to ensure the quality of the processes involved. These documents deal mainly with administrative issues but also include the planning of the experience,

([2]) For more information, see Soriano, (2000).

common guidelines for work experience supervision, the preparation of a profile of the students to be sent to the companies so as to optimise the matching of the company to the student, and the internal evaluation of the work experience programme that the Department realizes every academic year.

There is a close follow-up of students under placements and all teachers in charge of them keep records of these visits and tutorials. These records include checking the student's log, assessment activities, interview with the student and with the instructor, an analysis of the situation and proposals for further learning and development within the company.

Each student also keeps a daily record of the activities involved, including a description, guidelines for their accomplishment, time allocated, difficulties encountered and other comments and observations when needed. This student's log is supervised by both the instructor and the teacher.

Future employability is supported by the department within the school in charge of the follow-up of former students, allocating them to employers through the services provided by the school itself. Over these 20 years the school has developed a wide network that facilitates entry into the labour market for vocational training students. As it is a private school — though publicly funded — families prefer it to others.

The cooperative constituency of the school makes those working in it aware of providing the students with an extra education that includes a critical appraisal of economic and social issues as well as a strong emphasis on attitudes related to cooperative work, democratic decision-making, in-company communication, etc.

Lessons from work experience in these institutions.

Summarising both cases, we see in both of them organisations with an emphasis on lobbying education, training and social policies, with a European background and support, supporting different initiatives in different locations, having people attend the training as the core of the curriculum rather than the qualification to which it is addressed. Staff development is an important part of the institution's development policies.

Their training provision depends upon several departments within the regional government: education, employment, and welfare. But their constituencies are private ones. Few adults are in charge of the apprentices: a teacher and an expert on the educational side, and a worker in the workplace. They have few disciplinary divisions, which allows for an integrative curriculum. Work experience is allocated towards the end of the initiative because of the regulations established by the government, thus allowing scarce scope for debriefing, although this not only takes place once work experience is over but also during it. This is supervised by different means, attempting to both share experience and reflect upon it. The sequence is as follows: observing, working, telling, listening, and writing.

Work is understood as content and as a process. It comprises tasks, organisational features as well as social relations. Because of the pedagogical mediation, not only vocational skills are developed, but also working discipline, personal autonomy and maturity are fostered.

The tutorial system is very important within the schemes, with daily plans, follow-up sessions once a fortnight, briefing processes including visits to the different workplaces, and weekly meetings with the other apprentices at the educational institution. These serve as evaluation meetings in which the formative dimension of evaluation is well looked after, because of the educational perspective on work experience.

The tutor is the vocational education teacher in the workshop in the educational institution, and one of the most important tasks to be developed is the selection of who will attend work experience schemes — if not everyone — and the matching of apprentices to placements. Briefing or debriefing sessions are seen, therefore, as an educational means rather than a mere management issue.

The tutor's mediation role is that of focusing on the process side of work expe-

rience rather than upon the product itself. Attitudes towards norms – company and safety regulations –, towards personal relations and towards decision-making and problem-solving are part of the mediation role as well.

On the employers' side, daily supervision is expected as well as a weekly report on the students' progress and on their professional behaviour. Task allocation procedures make the apprentices think of the instructor more as a colleague than a teacher at work.

However, not everything is a success: apprentices tend to lack a view on anything related to work that goes beyond their one company. They are allotted tasks and considered as one more worker, although they do not know about the matching criteria or about the decision criteria: they are confident about both because they trust both the tutor and the instructor. As a result of all of this, they tend to think of the differences between the workplace and the workshop as a question of 'reality', the rush of everyday work, as they tend to think the content similar to that learned in the workshop. In spite of this, while in the workplace they realize their lack of experience, the lack of knowledge. This helps them focus also on the relations with customers, whether this is part of their allocated tasks or not. But they do not ever look into labour relations within the company.

As a result of the whole process of relating the experience, sharing stories about relations with colleagues and bosses and customers, about performances of tasks, about serving real customers with the pressure on the speed of the service, the emphasis also on performing satisfactorily and doing things properly; not only those in the workplaces learn, they also benefit from the experiences their colleagues are having. We may end by pointing to a better coverage of the work processes than on the specific content of each occupation, as the short period of work experience make it really hard to get out of a narrow focus. The outcomes of the pedagogies are involvement in the learning processes and thus facilitation of social integration in groups and further social inclusion; sharing rather than competing. With a certain disregard for the mode of production involved in each case, we have found a high level mode of learning, though limited in scope as indicated above.

Implications for future research

The strands of research that have been developed until now should be developed in two different ways. Firstly, the inclusion of work experience in the vocational education curriculum and, therefore, its consideration not as an extra element of the education but rather one that is at least as important as the rest and obviously one which helps build the vocational curriculum around a structure provided by the direct referent of the world of work. Secondly, the joint analysis of work experience and the role of vocational education nowadays, in relation to the education of young people as well as to the conflicting shape of the adult world: employment structures, technical change, work organisation, new technologies, etc. These are all issues dealt with by Cedefop (1998) in its review of research on vocational education in Europe, a two-volume work in which work experience has little room among its twenty-two chapters (Dybowski, vol. 1, pp. 143 and ff.; Bjornavold, vol. 2, pp. 215 and ff.). It is also similar to the work by Tessaring (1998).

New approaches are needed to the issue of work experience to allow these new developments. First, a whole new understanding of curriculum processes should evolve from the consideration of work experience as an external element to the educational system and one which allows important contexts to enter formalized education. Curriculum literature on vocational education is an area as yet underdeveloped and which needs other concepts than those used by curriculum studies when referring to academic education. In the end, curriculum design and development is also a working process as well as a control.

Also, a redefinition of the pedagogy of work experience with a focus on teaching rather than on learning. Literature from human resource development may be

useful here, with the emphasis on the transformative roles of the teacher and instructor such as mentorship, supervision and other educational approaches different to traditional instructional approaches with a more reductionist vision of work, society and the human being. Cooperative approaches to teaching and learning have an important say here, given the nature of the changes in work.

Assessment is another aspect of the educational process of work experience that needs a different treatment from research. It has been understood up to now as a mere technical problem where the main issue is how to show experience gained, how to certify the 'accreditation of learning'. Relations between curriculum and assessment frameworks must be developed, given that both are a means of controlling aims and content, but none of them have independent control over the pedagogical relation, the communication or didactics, the educational processes – paideia, not propaganda. In the pedagogical relation the student has a role to play and assessment, as an educational tool, must also serve the needs of students. The way that formative assessment has been devised by *Iniciatives Solidàries* is very insightful in addressing these issues.

These approaches open room for development in research on the latent and hidden potentials of transformative practice which may take place while learning a job 'on the job' while at the same time employing tools that are formative and driven from the educational system rather than simply job-focused or work-related. The foundations to approach citizenship development in vocational education, which were already settled by relevant educationalists at the beginning of the 20th century and particularly in the period between the wars, may be revived nowadays for the potentials that transformative uses of work experience allow. Therefore, a combination of the already classical literature on vocational education and citizenship – trying to establish bridges between general and vocational education – with the literature started in the late 1970s and developed from there on about the tacit rules, facts and processes of teaching and learning – symbolic interactionism for the microanalysis and critical pedagogy for a macro approach – shows good potential for explaining educational relations at work. Despite being highly criticized, the work by Willis (1988) is entirely relevant for these purposes.

Work experience also opens up a new line of research that has to do with the social divisions occurring nowadays as a consequence of the dualisation of society. In this sense, interesting areas arise such as definitions of 'work literacy' and the hidden curriculum of work, also shown and lived through work experience. This is something related to the appearance of 'new literacies' as well as new functional illiteracies, and which has to do with what the school cannot provide which work placement is able to. To be literate under these conditions has to do with applying the action research principles to work experience schemes, as this is an approach that allows the learners to develop their own knowledge of work as well as consciousness of it and their situation in relation to it. Rather than the present emphasis on core skills, work experience might become the core element of the curriculum, being a means to the construction of an integrated knowledge of – on and about – work.

Work experience must be studied then not only as a tool for vocational education – beyond vocational training –, but even as an educational resource for general education. Some have already approached this notion when studying work experience schemes at the primary and secondary compulsory level, but then again these approaches have centred on the procedural aspects of work experience rather than on the content it may have in helping build an identity which is both personal as well as socially aware for the conditions of adulthood nowadays. Approaches to this issue worth taking into account from different perspectives include those of Goffman (1981, 1986) on identity and everyday life, or Habermas (1982, 1987) on communicative action and emancipatory rationality; Castells (1994, 1997, 1998a, 1998b) on the information society; Gorz (1983, 1995) on the changing condition of work and society are Marxist analysis on work and education are also worth revisiting here.

All of the previous mean, of course, considering the institutional implications of

work experience beyond the effects it may have on students' learning, and taking into account the consequences for school organisation and the school system that such an element may introduce. This is obviously a redefinition of the relations between pedagogy, social policy and economy, as well as a reconceptualisation of the divisions of labour, which shape the social structure in different ways.

The teacher's role and autonomy in the definition of the curriculum format of work experience – beyond its programming and arrangements – is also an important feature to be researched. The role of the teacher within the school institution is about to change due to its relation with the outside world, namely the workers and the companies to which students are sent to accomplish their placements. An autonomous teacher finds themselves in a better position to develop social skills often tacit in the curriculum, he or she is in a better position to build and develop an integrated curriculum, a process model of development versus the instructional model of curriculum design, to focus on cognitive processes rather than merely on the outcomes as well as on the processes in the classroom.

Some of these issues will need qualitative research approaches: life histories, content analysis, and ethnography will be very useful in order to develop in-depth knowledge. But we cannot forget that, in an emerging issue like this one, statistical research is also a very important means of providing information upon which to select key aspects worth researching. As work experience schemes under different formats grow extensively in most countries, data are needed which show variations among teaching processes, curriculum insertion, learning outcomes, organization of schooling and relations between the worlds of education and work.

Education research should therefore leave the school and enter the world of work. This is not an easy task as many companies prove to be reluctant to outsiders doing research that is not necessarily for their own profit but for the improvement of education, which is not their primary objective and is mainly out of their control. Of special interest here is research on multinationals, where we may find a new definition of European dimension, and people framing similar problems in many different ways, while at the same time providing criteria for judging and assessing the value of work experience in a contextualised manner.

The focus of research may not only rest on the individual aspects of learning but also on the organisational issues comprised in the work experience scheme, not only in schools but also in the companies. Young people develop their identities not only as professionals but also as members of organisations, the school being one of these organisations. The impact of public and private sectors on work experience is relevant for these purposes, combining both with the meaning of education as a public service no matter what kind of provision it is served by. It is also vital that the unions become involved in research on work experience schemes, as during its history and that of the past century they have important notions to contribute to the formation of occupational identities. It is as important as taking into consideration the perspectives of managers on similar issues and the traditions of human resource management. Work experience meets where VET traditions and HRD research production meet, but in initial – not continuing – training, which is actually education rather than training.

References

Álvaro, M. (1993). *Evaluación de los Módulos Profesionales. Estudio de la Reforma experimental de la enseñanza técnico-profesional.* Madrid, CIDE.

Aparisi, J., Marhuenda, F., Martínez, I., Molpeceres, M.A. y Zacarés, J.J. (1998). *El desarrollo psicosocial en el contexto educativo de los programas de garantía social.* Valencia, Universitat de València.

Argyris, C. and Schön, D.A. (1982). *Theory into Practice.* San Francisco, Jossey-Bass, 8 ed. (1 ed. 1974).

Bernstein, B. (1997). *La estructura del discurso pedagógico* Madrid, Morata. (*Class, codes and control vol. IV. The structuring of pedagogic discourse* London, Routledge, 1990).

Bernstein, B. (1998). *Pedagogía, control simbólico e identidad.* Madrid, Morata. (*Pedagogy, symbolic control and identity*, Taylor & Francis, 1996).

Bjornavold, J. (1998). "Validation and recognition of non-formal learning: the question of validity, reliability and legitimacy", in Cedefop (1998). *Vocational education and training: the European research field. Background report 1998.* Luxembourg, Cedefop, Vol. II, pp. 215-234.

Bou, R. (1988). *La formación profesional en alternancia en la Comunidad Valenciana durante los cursos 1985-86 y 1986-87.* Valencia, Dirección General de Ordenación e Innovación Educativa, Conselleria de Cultura, Educación y Ciencia.

Bou, R. (1990). *El Programa de Prácticas de Formación Profesional en Alternancia en la Comunidad Valenciana: etudio de los resultados formativos y de inserción profesional.* Valencia, CEP de Valencia.

Boud, D.; Keogh, R. and Walker, D. (1989). *Reflection: Turning Experience into Learning.* London, Kogan Page.

Castells, M. (1994). 'Flujos, redes e identidades: una teoría crítica de la sociedad informacional', en AA.VV. (1994). *Nuevas perspectivas críticas en educación.* Barcelona, Paidós, pp. 13-53.

Castells, M. (1997). *La era de la información: economía, sociedad y cultura. La sociedad red.* Vol. I. Madrid, Alianza.

Castells, M. (1998a). *La era de la información: economía, sociedad y cultura. El poder de la identidad.* Vol. II. Madrid, Alianza.

Castells, M. (1998b). *La era de la información: economía, sociedad y cultura. Fin de milenio.* Vol. III. Madrid, Alianza.

Cedefop (1998). *Vocational education and training: the European research field. Background report 1998.* Luxembourg, Cedefop.

Connell, R. (1997). *Escuelas y justicia social.* Madrid, Morata. (*Schools and social justice.* Routledge, 1993).

Departamento de educación, universidades e investigación del Gobierno Vasco (1990). *Formación profesional en alternancia. Evaluación de la experiencia vasca.* Vitoria, Servicio Central de Publicaciones del Gobierno Vasco.

Dybowski, G. (1998). "New technologies and work organization – Impact on Vocational Education and Training", Cedefop (1998). *Vocational education and training: the European research field. Background report 1998.* Luxembourg, Cedefop, Vol. I, pp. 115-156.

Eraut, M. (1994). *Developing professional knowledge.* London: Routledge.

Eraut, M.; Alderton, J.; Cole, G.; Senker, P. (1998). *Development of knowledge and skills in employment.* Research report nº 5. The University of Sussex, Institute of Education, Brighton.

García, M. (1997). Els programes de garantia social: una intervenció educativa integral. *Barcelona Educació*, septiembre-octubre, 8-10.

Gimeno, J. (1988). *El curriculum, una reflexión sobre la práctica.* Madrid, Morata.

Goffman, E. (1981). *La presentación del yo en la vida cotidiana.* Buenos Aires, Amorrortu. (*The presentation of self in everyday life.* New York, Anchor Press, 1969).

Goffman, E. (1986). *Frame analysis: an essay on the organisation of experience.* Boston, Northeastern University Press.

Gorz, A. (1986). *Los caminos del paraíso.* Barcelona, Laia. (*Les chemins du paradis.* Paris, Galilée, 1983).

Gorz, A. (1995). *La metamorfosis del trabajo.* Madrid, Sistema. (*Métamorphoses du travail.* Paris, Galilée, 1991).

Guillén, P. (1998). *Evaluación del módulo de Formación en Centros de Trabajo de Formación Profesional Específica en la Comunidad Valenciana.* Informe de investigación presentado a las II Jornadas de Formación Profesional, FETE-UGT-PV.

Habermas, J. (1982). *Conocimiento e interés.* Madrid, Tecnos.

Habermas, J. (1987). *Teoría de la acción comunicativa.* Madrid, Taurus.

Hart, M.U. (1992). *Working and Educating for Life. Feminist and International Perspectives on Adult Education.* London, Routledge.

Iniciatives solidàries (2000). 'Experiencia de la asociación Iniciatives Solidàries: programas de prácticas en empresa', en Marhuenda, F. y Cros, M.J. (coords.)(2000). *Prácticas en empresa y formación profesional.* Valencia, Universitat de València, pp. 125-138.

Kolb, D.A. (1984). *Experiential Learning. Experience as the Source of Learning and Development.* Englewood Cliffs, New Jersey, Prentice-Hall.

Lipsmeier, A. (1978a). *Didaktik der Berufsausbildung. Analyse und Kritik didaktischer Strukturen der schulischen und betrieblichen Berufsausbildung.* München, Juventa Verlag.

Lipsmeier, A. (1978b). *Organisation und Lernorte der Berufsausbildung.* München, Juventa Verlag.

Lundgren, U.P. (1983). *Between hope and happening. Text and context in curriculum discourse.* Deakin, Victoria.

Lundgren, U.P. (1992). *Teoría del curriculum y escolarización.* Madrid, Morata. (*Between education and schooling: outlines of a diachronic curriculum theory.* Deakin, Victoria, 1991).

Marhuenda, F. (1994). *Estudio y trabajo: la alternancia en la formación profesional.* Universidad de Valencia, tesis doctoral.

Marhuenda, F. (2000). *Trabajo y educación.* Madrid: CCS.

Marhuenda, F. y Cros, M.J. (coords.)(2000). *Prácticas en empresa y formación profesional.* Valencia, Universitat de València.

Marhuenda, F., Cros, M.J. y Giménez, E. (coords.)(2001). *Aprender de las prácticas: Didáctica de la formación en centros de trabajo.* Valencia, Universitat de València.

Marsick, V. (1987). *Learning in the Workplace.* London, Croom Helm.

Martínez, I. y Marhuenda, F. (1998). *La experiencia educativa de los Programas de Garantía Social.* València: Universitat de València.

McKenna, P. and O´Maolmhuire, C. (2000). *Work experience in Ireland: partnerships for future effectiveness.* Dublin, Dublin City University.

MEC (1990). *Estudio sobre el Programa de Prácticas en Alternancia en Empresas. Síntesis.* Madrid, Ministerio de Educación y Ciencia, Dirección General de Coordinación y de la Alta Inspección, Servicio de Inspección Técnica de Educación.

MEC (1994). *Formación en Centros de Trabajo.* Madrid, MEC.

Miller, A.; Watts, A.G.; Jamieson, I. (1991). *Rethinking Work Experience.* London, The Falmer Press.

Peege, J. (1987). *Der Betrieb im dualen System der Berufsbildung.* Baltmannweiler, Pädagogischer Verlag Burgbücherei Schneider GmbH.

Peege, J. (1988). *Die Berufsschule im dualen System der Berufsbildung.* Baltmannsweiler, Pädagogischer Verlag Burgbücherei Schneider GmbH.

Reckman, P y van Roon, R. (1991). *Aprender es practicar.* Buenos Aires, Hvmanitas.

Schön, D.A. (1983). *The Reflective Practitioner.* San Francisco, Jossey Bass.

Schön, D.A. (1987). *Educating the Reflective Practitioner.* San Francisco, Jossey Bass.

Schön, D.A. (ed.)(1991). *The Reflective Turn.* New York, Teachers College.

Simon, R.I.; Dippo, D. and Schenke, A. (1991). *Learning Work. A Critical Pedagogy of Work Education.* New York, Bergin & Garvey.

Soriano, P. (2000). 'La FCT en la estrategia del centro para la formación y la inserción. Planificación pedagógica y administrativa', en MARHUENDA, F. y CROS, M.J. (coords.)(2000). *Prácticas en empresa y formación profesional.* Valencia, Universitat de València, pp. 83-94.

Stenhouse, L. (1984). *Investigación y desarrollo del curriculum.* Madrid, Morata. (*An introduction to curriculum research and development.* Heinemann, London, 1981).

Tessaring, M. (1998). *Synthesis report: Training for a changing society. A report on current vocational education and training research in Europe 1998.* Luxembourg, CEDEFOP.

Tyler, R.W. (1973). *Principios básicos del currículo.* Buenos Aires, Troquel. (*Basic principles of curriculum and instruction*, Chicago University Press, 1949).

Willis, P. (1988). *Aprendiendo a trabajar.* Madrid, Akal. (*Learning to labour: how working-class kids get working-class jobs.* Saxon House, 1977).

Zabalza, M.A. (1991). *Evaluación del programa de prácticas en alternancia de la Comunidad Autónoma Gallega.* Santiago de Compostela, CIDE.

The design and evaluation of in-company training programmes: Profile of the support team

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This article concerns the topic of in-company training, starting with the different types that exist, and then examining the various stages to be gone through in designing in-company training programmes in order to minimise mistakes and problems and enhance the likelihood of successful implementation. The data collection tools that are used to monitor progress and evaluate programmes are of crucial importance.
The so-called *"support team"* plays a key role in the methodology proposed. It is responsible for collecting information and passing it on to the persons involved, and for ensuring that programmes progress satisfactorily and meet their intended aims.
The design, evaluation and follow-up of programmes, and the skills profile of the support team, will govern the success of in-company training in Spain, which will without doubt be a key factor in raising the level of skills of the persons taking part in it, and in increasing their chances of finding a job.

In-company training: concept and background

Listening, observing, reading and practical work are different aspects of learning and of acquiring the skills needed to do a job. Many of these competencies can be achieved in a classroom or by means of distance learning, but this can only simulate real-life situations..

In the working environment, it is the interpersonal relations (with workmates, bosses, clients and suppliers), the problem-solving strategies, the rules of the organisation, the quality and quantity of work done, the use made of equipment and materials, etc., which largely govern each person's performance, satisfaction and safety. Applying the skills learnt in purely educational contexts in the working environment is what allows individuals to become aware of their actual effectiveness and true capabilities.

Access to a working environment, allowing what has been learnt in the classroom to be put into practice, becomes possible where individuals are directly temporarily employed by an organisation under an *in-company training* programme.

Vocational in-company training is a kind of *employment training* which allows individuals to try out their skills by performing a set of tasks. It combines learning with experience of an actual working situation. Hence it operates both as training, in which a range of knowledge, skills and attitudes are learnt, and as employment, since the learning takes place in the actual workplace, usually within an organisation (large or small).

The aim of in-company training is to provide individuals with skills; but also, increasingly, to enhance their chances of finding a job. It works as an employment promotion strategy since people enrolled in this type of programme are frequently taken on by the company where they have trained, or by a similar body.

Vocational in-company training may be conducted as an independent activity unconnected with other training activities, or it may form part of a broader education and training programme.

As a training activity, it may follow a vocational job training course or regulated vocational training. In either case, it is usually termed "*work placement*", students entering the workplace in order to apply the knowledge and skills acquired in the classroom.

In the case of regulated vocational training, which is controlled by the Ministry of Education and Culture (MEC), the best-known form of in-company training is called "Employment Centre Training" (ECT). ECT *takes place in a real production environment in which students carry out the tasks appropriate to the various jobs, and learn about the organisation of production and delivery of services, and about social and labour relations within the company* (Dirección general de formación profesional reglada, 1994). Besides ECT, the MEC is also responsible

for other types of employment training, such as training workshops, trade skills workshops, job workshops and work placements for students in the final year of university courses (*practicum*).

In vocational training it is increasingly common for a number of hours at the end of courses to be devoted to workplace activities, that is, to in-company training as an additional activity.

However, in-company training can also exist as an independent form of *employment training*. This means that students join an organisation for a certain period of time in order to acquire the skills needed to carry out a job, without any previous or subsequent theoretical sessions.

Both where the activity forms part of a broader education and training programme (as in the case of vocational in-company training or vocational job training), and where it is an independent form of training, the design of the programme, the tools used and the skills of the instructors will largely govern how it sets out to meet its aims.

One of the areas of psychology which is of relevance to research and teaching regarding in-company training is work psychology: this discipline studies the behaviour of people at work or in like situations at a range of different levels of analysis (individual, group, organisational and social) for the purpose of observing, describing, measuring, analysing, predicting, explaining and, in certain cases, modifying that behaviour, in order to enhance individuals' satisfaction, safety and performance.

The various forms of *employment training*, and hence in-company training, would be one of the subjects falling within the remit of work psychology. Some of the various areas of work psychology which can be directly applied to teaching and research in in-company training are: job analysis and description, socialisation at work, individual differences at work and in like situations (intra-individual, interindividual and intergroup), staff evaluation, staff selection, staff training, performance evaluation, job satisfaction, motivation, employment guidance, tools to analyse job evolution, conflict, decision-making and problem-solving, occupational health, ergonomics, etc.

It is essential that a work psychologist should be involved in in-company training together with representatives of the other scientific professions, so that they can study the programme as a multidisciplinary team and ensure that it meets the required level of effectiveness and achieves its aims.

Designing in-company training programmes

The success of any project which is intended to achieve specific aims invariably rests on good design and proper planning. It will become obvious that it is far easier to carry out an in-company training programme in which sufficient time has been devoted to planning.

In-company training programmes must be designed and planned with care. The first step, even before the design work starts, is to determine whether they are really necessary. For example, it will clearly be uneconomic in financial and social terms to launch an in-company training programme for a group of people who already have sufficient knowledge and skills to do a given job, particularly where there are plenty of vacancies in that field in the labour market.

If a need is demonstrated, it is indispensable, again before design work starts, to involve as many senior staff as possible from the organisations and agencies which will deliver the programme. Without their support it is unlikely that it will succeed - since they will be the ones responsible for its financial viability and for ensuring acceptance by the workers called on to train the "students" joining their organisations.

Furthermore, if potential problems are to be identified and resolved before they cause unwanted consequences, if all staff are to achieve satisfaction, if the programme is to be cost-effective and to perform well, if accidents are to be avoided, etc., arrangements for follow-up and evaluation have to be put in place, and

this requires support from as many decision-makers as possible. These are the first people who need to approve and support the design, planning and implementation of an in-company training programme.

Aims

The main aim of an in-company training programme is to enhance students' skills and their chances of finding a job.

The various types of training stress the transmission of theoretical knowledge, and of course of practical knowledge too. But particular attention must be paid to *"learning to do"*, to giving participants the skills they need to do a job satisfactorily. In addition, when training occurs in a real working environment, the issue of attitudes must be dealt with by way of *"learning to be"*, which is closely tied to the norms and culture of the organisation in question – which, in turn, govern *"being able to do"*. Another factor to be taken into account, if a programme is to be successful, is the variables affecting motivation, which are reflected in the phrase *"wanting to do"*.

Nowadays, training goes hand in hand with finding and keeping a job, with the result that in-company training is on many occasions a job-finding scheme. Frequently training is provided for a group of people who then remain in those organisations; if not, jobs are sought for them elsewhere.

Where a company sees the need and has the means to engage an individual, it will seldom pass up the opportunity of training that individual for the job. This allows the company to check whether he or she adapts properly to the norms of the organisation, the department and workmates, whether the work done is of sufficient quality, whether it is finished within the time allowed, whether it is satisfactory, and so on. There are few selection processes that check an individual's suitability for a specific job so thoroughly.

Bodies and staff involved

In-company training programmes involve a broad variety of people in addition to the individuals addressed by the scheme.

Table 1:

Persons involved in in-company training

Company	Agency from which students have come
• General co-ordinator(s) or person(s) responsible in each organisation • Tutor(s) • Instructor(s) • Student(s)	• General co-ordinator(s) or person(s) responsible for the programme • Support team and students' tutors

Two main groups can be distinguished in the first instance: the company taking on the trainees, and the agency from which they have come. As has been stated, they may come from a variety of sources: from the last stage of a regulated training course, from a job training course, or from an organisation which provides "full-time" in-company training. In all cases there will be an originating agency and a final agency – the company which takes them on.

Both in the company where the in-company training will be carried out, and in the agency from which the individuals come, there are specific persons who are assigned particular functions and responsibilities, as seen in Table 1.

The co-ordinators in each organisation or agency who carry general responsibility are those charged with signing the co-operation agreements and sorting out management problems. Their functions extend beyond administration and formal arrangements, their most important task consisting in involving all those concerned with the programme and ensuring that these persons feel committed to the in-company training of the "students".

Within the company, there is usually a tutor figure, i.e. someone charged with monitoring students' learning, ensuring that they fit into the culture of the organisation, and with overall responsibility for the achievement of the stated aims. In some cases, the tutor is directly responsible for training students; in others, this task is delegated to an instructor, a technician at a lower level who is in touch with the work from day to day.

In the agency whence the students have come there must be a support team as well as the general programme co-ordinator. This team is responsible for following up and evaluating the in-company training programme. Its main purpose is to check the satisfaction levels of tutors and students – for example, that workplace students are performing and learning to best effect.

Stages of implementation

Before students take up their respective training places, the following series of steps need to be taken:

❏ Selection/recruitment of placement companies and signing of agreements

❏ Identification of training places in each company

❏ Appointment of tutors and instructors in each company

❏ Creating the support team responsible for evaluating and following up the programme

❏ Description of training jobs: aims of the job, situation within the structure of the organisation, knowledge required, tasks to be carried out, equipment, responsibilities, level of decision-making, type of instructions and supervision, potential mistakes and their consequences, etc.

❏ Drafting the training programme to be provided for each training place

❏ Advertising the scheme in order to recruit students

❏ Selection of students: they must be "*suitable*", so to make sure that there will be no false expectations, that those with university qualifications are not allocated to lower-level vocational training, that those in full-time study are identified and excluded, and that students fit the characteristics and requirements of the training place.

❏ Signing contracts with students

❏ Induction of students

Method of training

The method used to train students usually depends on the culture and customs of the organisation or department. There are training places where there is direct control over everything asked of or done by the student, and constant evaluation of how well the student does it, while in others, nobody tells the student what to do, or how, or when.

Either strategy may prove suitable, although success will depend in the second case on the initiative of the student in forming relationships with the staff of the organisation and offering to make a contribution.

Duration

The duration of every training job does not have to be the same. It must accord with the characteristics of each job: when there is no more to teach and the student has learnt and mastered the various skills, there is no point in prolonging it.

Timetable

Sufficient attention must be given to the special peculiarities of the organisation and the department where the training job is situated. The timetable laid down for in-company training needs to be flexible and to match the characteristics of each department, so as to avoid situations where students spend time away from the workplace in order to satisfy a notional timetable while their tutor or instructor arrives later or leaves earlier than they do.

Methods of remuneration

Various methods of financial remuneration are used in in-company training programmes. In some cases, this if formalised through a "training contract" or a "bursary" for the student, which provides for payment. The cost of remuneration may be covered by the receiving organisation and/or the agency running the programme. The main advantage of co-financing is the involvement of both bodies in ensuring that the programme meets its intended objectives.

On other occasions, essentially where an organisation is reluctant to accept students, it may receive payment for every student, or for every hour when students are on the premises. In this case, some effort has to be made to involve students and motivate them to learn and apply a

set of skills since they receive no payment except travel expenses.

In other cases, no payment is made either to students or to the organisation receiving them. In some instances, of course, essentially in job training courses, the main criterion for selecting the training organisation is that it should be able to provide in-company training for students once they have completed classroom learning.

Evaluation of in-company training programmes

It is nowadays unthinkable that any programme should be set up without prior consideration of the manner in which its results will be evaluated. A variety of tools are available to collect information on the progress of in-company training, and others can provide concrete data on the effectiveness of the programme.

Scales, surveys and recording of information

Collecting and recording information on activities carried out at the workplace

Before students start at the workplace, there has to be a description for each job. This needs to specify the functions and tasks to be carried out, the equipment, materials and tools to be employed, the levels of responsibility to be accepted, the degree of participation in decision-making, etc. A training plan also has to be drawn up, setting out what is to be learnt and the time allowed for this purpose.

When students start work, the collection of information on the activities carried out and the time they devote to these, and on the materials they use, will show the extent to which the aims previously laid down are being achieved, and the tasks set out in the job description are being performed. This type of record has two purposes: first, provided that it is signed by both tutor and student, it provides written proof of what is being done; secondly, it reveals any mismatch in planning, i.e., whether the tasks supposed to be carried out in the job coincide with what is actually being done. For example, if a student is spending most of the time on monotonous and repetitive tasks which do not contribute to learning, the support team will be able to intervene to prevent dissatisfaction and ensure effectiveness.

Performance evaluation scales

Nelson (1990) suggests that measuring an individual's performance (and satisfaction) at work provides indicators of skills match and mismatch between worker and employer. Similarly, Chao, O'Leary-Kelly, Wolf, Klein and Gardner (1994) argue that effective learning of job functions and tasks has a positive influence on workers' socialisation.

Students' performance can be measured in in-company training, this evaluation being made by a variety of different agents: the workers themselves, their supervisors, workmates, customers and subordinates (Cascio, 1995). In the context of in-company training, it would seem advisable only to use the first two agents: the students themselves (self-evaluation of performance) and their tutors. This will also allow for analysis at set intervals of progress over the months. Some of the variables to be borne in mind, using a five or seven-point Likert scale for example, are as follows:

❏ Punctuality, compliance with times for starting and finishing work.

❏ Absenteeism, regular attendance at the place of work.

❏ Interest and learning effort.

❏ Appropriate use of equipment, materials and tools.

❏ Correct use of time in carrying out tasks.

❏ Optimal performance of work.

❏ Ability to work in a group.

❏ Ability to follow instructions received.

❏ Overall assessment of work performance.

The above list provides for evaluation of eight specific aspects of performance, and

for overall assessment. The basic aim of the evaluation is to identify aspects where improvements may be made by the intervention of support staff. Having the point of view of both students and tutors allows for analysis of discrepancies between one and the other, although it is certainly to be expected that students' assessments will be consistently higher than those of their tutors on each point.

According to Quijano (1992) and Landy and Farr (1983), some of the purposes of performance evaluation, as adapted to in-company training, would be: to obtain information of use in decision-making, to provide feed-back (specific and descriptive) to students on their performance, and to establish whether the selection, training and follow-up techniques being used are adequate.

Satisfaction evaluation scales

Satisfaction can be defined as an attitude or set of attitudes held by a person towards his or her work in general or towards specific aspects of that work (Arnold, Robertson and Cooper, 1991; Beer, 1964; Bravo, 1992; Griffin and Bateman, 1986; Harpaz, 1983; Peiró, 1984; Salancik and Pfeffer, 1977).

Locke (1976) defines job satisfaction as a positive or pleasant emotional state resulting form the subjective perception of a person's job experience. Definitions similar to that of Locke, regarding satisfaction as emotional, are given by a variety of authors (Crites, 1969; Davis and Newstron, 1999; Muchinsky, 2001; Mueller and McCloskey, 1990; Price and Mueller, 1986; Smith, Kendall and Hullin, 1969). If job satisfaction is recognised as an emotional state, then the emotions are of key importance in in-company training.

Locke (1976) argues that what governs satisfaction is the degree to which actual experience of work measures up to some personal criterion. He identifies nine specific aspects or dimensions of job satisfaction: satisfaction with the job, salary, rate of promotion, benefits, conditions of work, supervision, workmates, company and management.

Various models of satisfaction reflect its dependency on the degree to which what an individual is looking for in a job coincides with what the job actually offers (Locke, 1969; Porter and Lawler, 1969). Where the two are in balance – that is, where there is no mismatch – the individual will be satisfied with his or her job. Where there is a mismatch, this may be of two types: intrapersonal, in which the individual compares his or her perceptions of actual working experience with his or her own criteria; and interpersonal, in which the individual compares himself or herself with others in order to determine job satisfaction (Muchinsky, 2001).

It would seem clear that one of the areas which may explain why individuals fit well into their training jobs or not is student satisfaction. It is therefore suggested that overall satisfaction and satisfaction with different aspects of the job should be evaluated and checked over time. This may be done by means of a simple Likert scale using items investigating the degree of satisfaction with the following aspects:

- ❏ Functions and tasks carried out in the job.
- ❏ Training received.
- ❏ Equipment, materials and tools.
- ❏ Physical conditions (place of work, lighting, temperature).
- ❏ Safety at work.
- ❏ Relations with workmates.
- ❏ Tutor.
- ❏ Instructor(s).
- ❏ Level of overall satisfaction.

Interviews

The use of individual or group interviews allows extremely valuable qualitative information to be collected as a contrast to the data obtained by other methods. If an atmosphere of trust is created which offers support, students' emotions and feelings can be ascertained and information can be obtained that will make it possible to anticipate any problems. Such data are not reflected in the evaluation scales and enable decisions to be taken as to appropriate steps. Interviews also

make it possible to pass on to students and tutors information about various aspects of the programme which they need to know.

Job-finding surveys and job-seeking group support sessions

Where in-company training programmes are implemented, with all their attendant costs and the resources which have to be committed, it would be unthinkable not to obtain feed-back on their results. Once they are completed, it is necessary to establish whether they have been cost-effective, and to what extent they have fulfilled their aims. A simple survey will reveal those individuals who have found work, the nature of that work, the tasks they are performing in their jobs, the companies which have employed them, the requirements that were looked for, how they found those jobs, etc. This information may be used for various purposes, from justifying the usefulness of the in-company training and launching further programmes, to examining why some individuals have not found work after a certain time.

Surveys of job-finding may be made six months and one year after a programme has finished in order to review changes over time.

Group support sessions may be arranged for those individuals who have not found work after the initial six months. The aim of these will be to resolve the various problems faced by students in the search for a job.

If the group sessions are attended by students who have found work, their opinions and experiences of job-seeking and the strategies they have used to overcome problems will be of great help to those who are still looking for work.

Specific support activities

Guidance

Job guidance is the process aimed at providing individuals with information, assessment, and the strategies enabling them to locate the job that best fits their skills profile and intended area of employment, bearing in mind available opportunities in the labour market.

If in-company training students are to be advised appropriately, a knowledge of the characteristics of the labour and training markets is a prime requirement. This presupposes taking the following actions in relation to each training job:

❏ Establish the various job destinations via the different occupational classifications, the one most commonly used in Spain being the National Classification of Occupations (INE, 1994).

❏ Find out the figures for supply, demand and recruitment, which can be derived from the Permanent Observatory of Occupations (INEM, 1997, 1999) and publications of the Autonomous Communities (Comunidad de Madrid, 1999, for example). Establish the various opportunities for further training and the pathways that may be followed, from publications such as those of the National Institute of Employment (INEM, 1993), and the various tools of that agency which enable occupations to be matched to levels of training.

❏ Compile information on usual conditions of work in each sector.

This information can be communicated to students at the end of training through group information sessions, with homogeneous groups of 15 to 20 persons arranged by profile, in a similar way to *vocational job information* sessions (INEM, 1994). The data may be supplemented by lists of the names of employers in the sector who might be interested in recruiting them, and the names of contact persons, which can be obtained from the various specialist guides and directories.

Job-seeking training

Throughout the in-company training programme, students are receiving training for employment, but they would also find it very useful to receive job-seeking skills. As one of the activities of job training various courses in the techniques of job-seeking may be organised immediately after completion of the programme in order to enhance students' skills in find-

ing and keeping a job. INEM has a guide to conducting such courses. There, it suggests the method to be followed and possible activities to be carried out (INEM, 1994).

This type of activity can be used to evaluate individuals' skills, interests, availability, difficulties and self-perceived fears, strengths and weaknesses, etc. From such information, a suggested path to finding a job can be drawn up for each individual.

Job-finding

One possibility for students is to be hired by the organisation where they have received in-company training. Another is that their curricula vitae are offered to other employers in the sector, who may be interested in recruiting them. Careful selection of jobs in the first stage of the programme is important to the success of this search, as there is little point in choosing a job for which there is scant demand in the labour market.

All the job-finding activities undertaken, that is, mediation between those seeking work and companies and employers interested in adding additional workers to their payrolls, will without doubt help to enhance the results of job-seeking training and hence to ensure that the in-company training programme successfully meets one of its main aims. Some of the different steps that can be taken in practice are: setting up meetings with employers, organising conferences and seminars on specific topics, telephoning and visiting employers, etc., and offering them the cv's of the various students with experience of in-company training. If these steps are to be successful, employers have to be carefully selected, and the profiles of students have to be known in detail. In other words, job-finding activities call for prior job guidance work with students, including during the in-company training.

In-company training will be much more akin to a job-finding scheme if there is prior contact with employers to identify their needs. At the same time, they should be involved in the in-company training. If they are finally satisfied with a student, there will be much greater likelihood of the training place turning into a permanent job.

Profile of the support team

The group of people responsible for monitoring students' satisfaction and tutors' satisfaction with students, for checking that students are genuinely learning and applying the skills needed to carry out the job correctly, that they are fulfilling their tasks adequately and have good relations with workmates and superiors, and ultimately for identifying problems that may arise in order to resolve them, makes up what has been termed the *support team.*

The strategies which the support team needs to put in place in-company training has certain similarities with some of those suggested by Cohen (1998) when he refers to the mentor inside the organisation.

The first task of the support team, after receiving information from the co-ordinators of the programme, is to **pass on** this **information** to tutors and students. The latter need to be told what the relationship will be with them, what they will be doing at the training organisation, what methods will be used to collect information, etc.

Information collection is the second of the major tasks, which means compiling data enabling assessment of students' level of improvement, satisfaction and performance, and of how they are adapting to their training places. Tutors' and instructors' views on students and on whether they fit in with the norms of the organisation, have become integrated into the department, are making satisfactory progress and carrying out tasks adequately, will therefore also be of interest.

Analysing the information collected, so as to establish whether everything is going as intended, is the third task. If everyone is satisfied, which is in fact usual, all that will need to be done is to check that this remains the case. If any sort of problem or incident arises, the support team will need to intervene to resolve it, by contacting all those involved in order to obtain all points of view and act objectively.

Lastly, it is necessary to be in a position to **help** every student **to plan his or her future career**. In some cases, this will be easier if the organisation is willing to add the student to the payroll; in others, it will be necessary to examine the various sectors where there is a chance of recruitment, to develop relationships with employers in those fields, and to draw up profiles of the jobs matching the skills acquired by the students through employment training. This may mean contacting the employers, implying direct action to find jobs, or merely passing on this information to students. One aspect of considerable importance, once technical training is completed, is to offer training that enables participants more easily to acquire job-seeking techniques and the ability to cope with the selection process.

This group of professionals must possess or develop a set of skills enabling them successfully to carry out the various functions with which they are entrusted. These skills are set out in Table 2, where they are related to the tasks to be performed, and to the various tools and methods used in the team's everyday work.

It would appear that in-company training programmes are one of the best ways, if not the best, for the individuals involved to acquire the high level of skills required to do a job, and that they have a direct effect on the level of success at finding a job.

In Spain, there are systematic periods of in-company training in intermediate and higher courses (*Ciclos de Grado Medio* and *Ciclos de Grado Superior*), training workshops (*Escuelas Taller*), trade skills workshops (*Casas de Oficios*) and job workshops (*Talleres de Empleo*).

Regulated vocational training, which is provided by the Ministry of Education and Culture, is the major source of in-company training through Employment Centre Training. This is compulsory for students in intermediate and higher courses, and takes place during the academic year in periods of eight, ten or fifteen weeks. It runs for one or two academic terms once all subjects required to obtain a leaving certificate have been completed. The timetables of pupils in employment centres are similar to the hours of work in collaborating organisations.

The training workshops and trade skills workshops are job training centres where unemployed young people aged under 25 years receive sandwich training which alternates with job placements (work in the real world). The aim is that, by the time they have finished, the students should be sufficiently well trained to work in the job in question and that they will find it easier to gain access to the world of work. In 1999, training workshops and trade skills workshops trained 19,137 persons (12,118 and 7,019 students respectively).

Job workshops are mixed programmes of work and training in which the workers taking part receive vocational training and work practice by carrying out public works or social service in one of nine fields of employment (public services, cultural and leisure services and everyday personal services), enabling them subsequently to find employment either elsewhere or through the creation of commercial or non-profit making social projects.

In the academic year 1999/2000, the number of students undergoing vocational training in Spain totalled 453,870 (MEC, 2000). When the new system of vocational training is fully operational throughout the country Employment Centre Training will be arranged for all, as it will become compulsory rather than optional.

Employment Centre Training (ECT) poses a challenge for the teachers working in the institutions responsible for following up students on placement in companies. If they are to carry out their role effectively, and to ensure that students learn while they are applying a set of skills, it is indispensable that this group of teachers should receive training and be given the necessary resources. Perhaps the best way of guaranteeing success might be to create a full-time post responsible for ECT in each training organisation, given the number of tasks to be carried out: programme design, evaluation and follow-up, helping students enrolled to find jobs, etc.

The future of in-company training in Spain depends in large measure on the various

Table 2:

Profile of support team

Skills	Functions	Support tools
• Ability to draw information together • Verbal fluency • Social skills	**Passing on information** to students and tutors about the features of the programme, the steps to be taken, the records to be kept, etc., and to the general co-ordinators about the progress of the programme, incidents which may occur and the solutions proposed.	• Interviews • Written documentation • Telephone conversations
• Observation • Active listening • Empathy • Creating positive feelings • Flexibility • Social skills	**Collecting information** about the tasks carried out, the learning pursued, performance and satisfaction, attitudes demonstrated, relations with workmates, degree to which expectations are met, etc. This information can only be obtained if a feeling of trust is created, enabling the "student" to share with the "support staff" the positive and negative emotional experiences produced by the work and both parties' reflections on those emotions.	• Records of information collected • Individual and group interviews with tutors and students
• Ability to resist monotony • Attention	**Reviewing the documentation collected**, analysing data, intervening with those individuals who demonstrate that they are unsuited, drafting reports, etc.	Statistical packages, spreadsheets, word processing programmes
• Problem-solving ability • Social skills • Assertiveness	**Identifying and solving problems**, seeking reconciliation where there are disagreements between tutor and student, enhancing students' satisfaction where this is low, helping in the analysis of behaviour, expectations, etc. Collaborating in changing attitudes where required, and ensuring that students become well adapted to the job, the organisation and their workmates. The recommended methodology is similar to that used in collecting information.	Individual and group interviews with tutors and students
• Ability to analyse and organise information • Skill in forming groups	**Planning for the future** through analysis of the labour market, conditions of access to that market, and opportunities for additional training. Giving students guidance on seeking and obtaining employment in accordance with their interests, skills, abilities and availability. Training them to look for work and informing them about those sectors with the greatest number of jobs available.	• Tools for analysing the labour market • Individual and group interviews • Specific training

agencies responsible for managing it and taking the steps necessary to ensure its greatest effectiveness. Experiences such as the training workshops and trade skills workshops, and job workshops (funded by the National Institute of Employment and the Autonomous Communities), or the FINNOVA programmes of the Community of Madrid, are proving extremely effective in finding jobs for a wide range of persons. As in-company training spreads generally to all the various job training courses aimed at the unemployed, the skills and knowledge acquired will increase and the results will feed into lower unemployment figures.

In the academic year 1999/2000 the number of students attending university exceeded a million and a half (MEC, 2000), that is, almost three and a half times greater than the number of students undergoing vocational training. This goes some way toward explaining the unemployment figures among university graduates.

The solution may lie in high-quality in-company training leading to high levels of skills and the likelihood of finding a job immediately. In-company training may lead to a change in the way vocational training is perceived in Spanish society. If this is to come about, particular attention will need to be given to the design, evaluation and follow-up of programmes, and to the training and resources provided for the professionals responsible for delivering it.

Bibliography

Arnold, J.; Robertson, I. and Cooper, C. (1991). *Work Psychology Understanding human behavior in the work place.* Pitman Publishing.

Beer, M. (1964). Organizational size and job satisfaction. *Academy of Management Journal*, 7, 34-44.

Bravo, R. J. (1992). *La satisfacción laboral en los profesionales sanitarios. Elaboracion de un instrumento de evaluación.* Valencia: Graduation thesis (mimeo).

Cascio, W. F. (1995). *Managing human resources.* New York: McGraw-Hill.

Chao, G. T.; O'Leary-Kelly, A. M.; Wolf, S.; Klein, H. J.; and Gardner, P. D. (1994). Organizational socialization: Its content and consequieces. *Journal of Applied Psychology*, 79, 730-743.

Cohen, N. H. (Ed.) (1998). *Perfil de competencias del mentor.* Madrid: Centro de Estudios Ramón Areces.

Comunidad de Madrid (1999). *Ocupaciones demandadas por los desempleados de la Comunidad de Madrid*. Madrid: Agencia para el empleo de Madrid. Consejería de Economía y empleo.

Crites, J. O. (1969). *Vocational Psychology The study of vocational behavior and development.* New York: McGraw-Hill.

Davis, K. and Newstrom, J. W. (1999). *Comportamiento Humano en el Trabajo*. México: McGraw-Hill Interamericana.

Dirección general de formación profesional reglada (1994). *Formación en Centros de Trabajo.* Madrid: Ministerio de Educación y Cultura.

Griffin, R. W. and Bateman, T. S. (1986). Job Satisfaction and Organizational commitment. In C. L. Cooper and Robertson, I. (Eds), *International Review Industrial and Organization Pychology.* New York: John Wiley and Sons.

Harpaz, I. (1983). *Job satisfaction. Theoretical perspectives and a longitudinal analyssis.* New York: Libra Publishers.

Instituto nacional de empleo (1993). *Estudio de Necesidades de Formación Profesional*. Madrid: Subdirección general de gestión de la formación ocupacional

Instituto nacional de empleo (1994). *Acciones de Información, Orientación Profesional y Búsqueda de Empleo*. (4 vols.) Madrid: Subdirección general de promoción de empleo

Instituto nacional de empleo (1997). *Ocupaciones de interés en el Mercado de Trabajo en 1996.* Madrid: Observatorio permanente de la evolución de las ocupaciones. Subdirección general de gestión de la formación ocupacional

Instituto nacional de empleo (1999). *Información sobre el Mercado de Trabajo.* Madrid: Observatorio permanente de la evolución de las ocupaciones. Subdirección general de gestión de la formación ocupacional

Instituto nacional de estadística (1994). *Clasificación Nacional de Ocupaciones*. Madrid: Instituto Nacional de Estadística

Landy, F. J. and Farr, J. L. (1983). *The measurement of work performance. Academic Press*, New York.

Locke, E. A. (1969). *What is job satisfaction? Organizational Behavior and Human Performance*, 4, 309-336.

Locke, E. A. (1976). The nature and causes of job satisfaction. In M. D. Dunnette (Ed.), *Handbook of Industrial and Organizational Psychology.* New York: John Wiley and Sons.

Ministerio de Educación y Cultura (2000). *Estadísticas*. www.mec.es/educacion/

Muchinsky, P. (2001). *Psicología Aplicada al Trabajo*. Madrid: Paraninfo. Thomson Learning

Mueller, C. W. and McCloskey, J. C. (1990). Nurses' job satisfaction. A proposed measure. *Nursing Research, 39,* 113-117.

Nelson (1990). Adjusting to a new organization: Easing the transition from outsider to insider. *Prevention in Human Services*, 8, 61-66.

Peiró, J. M. (1984). *Psicología de la Organización.* (2 vols.). Madrid: UNED.

Porter, L. W. and Lawler, E. E. (1969). *Managerial attitudes and performance.* Dorsey: Homewood.

Price, J. L. and Mueller, C. W. (1986). *Absenteeism and turnover among hospital employees.* Greenwich: Jai Press Inc.

Quijano, S. D. (1992). *Sistemas efectivos de evaluación del rendimiento: resultados y desempeños.* Barcelona: PPU.

Salancik, G. and Pfeffer, J. (1977). An examination of need-satisfaction models of job attitudes. *Administrative Science Quarterly*, 22, 427-456.

Smith, P. C., Kendall, L. M. and Hullin, C. L. (1969). *The measurement of satisfaction in work and retirement.* Chicago: Rand McNally.

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Education under pressure to modernise

The challenges of structural change, new educational ambitions and globalisation

In Austria, the reduction in the number of apprenticeship posts by 20% during the 90s has created a real malaise, blocking the usual transition route for the most vulnerable members of society. This development can be attibuted not only to demographic factors, but to economic and technological changes. It is now necessary to negotiate how to update the reference points of vocational training and how to restructure training pathways in a way that favours parity of esteem between vocational training and general education. On the one hand, the barriers surrounding vocational training must be lifted, allowing its second-degree certificate holders access to higher education; on the other, higher levels of training must become attractive again, as befits a developed, high-tech tertiary economy.

As evidenced by labour market transitions, especially among young adults, the Austrian education system was developing successfully up until the 90s, relatively unscathed by structural problems and debates. In the 90s, however, increasing evidence of new transition problems began to emerge, both at the end of compulsory education and at post-secondary level. The background to these new challenges to educational research and policy are structural change within the economy and the labour market, globalisation, and changes in the public's educational behaviour.

The emergence of problems at the education system's institutional points of transition (on completion of compulsory education and post upper school/Matura) is related to the distributive role of education - or rather, to the curricular but also structural pressure to adapt to the new requirements and opportunities of the employment system. This article aims to provide an overview of existing problems in vocational and university training and of the reforms introduced so far. In practical terms, data from official statistics (labour market, national census, smaller-scale censuses) are used, sometimes for special analyses.

Transition problems following completion of compulsory education

Until the mid 90s educational research and policy in Austria commonly accepted that around 98 percent of young people would undergo some form of training on completion of nine years of compulsory education. The question of whether these courses were actually completed was never raised. It therefore came as somewhat of a surprise when an analysis of official statistics concerning the educational level in those school years when the higher secondary level was expected to have been completed, revealed that the data only referred to the beginning of training. Data from both national and micro-censuses shows a sharp increase in the number of young people who are no longer in the training system during those critical years. According to the 1991 national census, 4.8% of 15-year olds, 11.2% of 16-year olds and 18.3% of 17-year olds were not in the training system. ([1])

Table 1 describes the way in which the transition period at the end of the nine years of compulsory education has developed since the early 70s, broken down by main Austrian educational pathway. It clearly shows the statistical disappearance of the category of people not undergoing training as of the mid 90s. The reason for this is that the total number of young people indicated as undergoing training at this level turns out to be well above the total resident population in the corresponding age cohorts. This is largely due to an increasing number of young people embarking on several courses, or repeating 10th grade in the same and in another pathway. However it is also due to lack of statistical clarity in some categories. ([2])

Paradoxically it seems that one of the central problems in educational policy since the mid 90s relates to this group of young people, who have proven particularly hard to track down in official education statistics. There is an ever-grow-

([1]) See: Lassnigg, L., Schneeberger, Arthur. *Transition from Initial Education to Working Life. Country Background Report*: Vienna, July 1997. pp.14ff. and 65ff.; see also: Steiner, M, Lassnigg L. Schnittstellenproblematik in der Sekundarstufe, in: *Erziehung und Unterricht*, (Austrian Teaching Magazine), No. 9-10/2000, Vienna, p. 1063ff.

([2]) See: *Entwicklungen und Probleme des Lehrstellenmarktes. Befunde und Perspektive.* (a series of reports from the Institute for Educational Research), No. 108, Vienna, March 1998, P.35ff.

Table 1:

Young people's educational itineraries after completing compulsory education

Estimate based on pupil numbers and demographic data

Year	Training/ BPS	BMS	BHS*	AHS	Not in training	Theoretically comparable population	
	%	%	%	%	%	%	Absolute
1970/71	48.8	12.3	6.2	14.3	18.4	100.0	104,200
1975/76	47.3	16.3	9.1	14.8	12.5	100.0	123,100
1985/86	46.7	15.8	16.3	16.3	4.9	100.0	115,800
1990/91	47.4	13.9	20.8	16.6	1.3	100.0	96,100
1995/96	40.2	14.0	22.7	20.2	2.9	100.0	93,800
1996/97	38.6	14.0	24.4	21.1	1.9	100.0	97,100
1997/98	39.9	13.9	25.7	20.5	-	100.0	98,971*

*Pupils in 10th grade
BPS = Berufsbildende Pflichtschulen/Compulsory vocational school (part-time school for trainees)
BMS = Berufsbildende mittlere Schule/Intermediate vocational school (technical colleges, commercial colleges etc.)
BHS = Berufsbildende höhere Schule/Vocational upper school (leading to university entrance qualification)
AHS = Allgemeinbildende höhere Schule/General upper school (leading to university entrance qualification)

Source: BIQ; BMBWK; own calculations

ing number of people going into further and higher education at upper secondary level. As a result, since 1996 young people who either have no desire to enter a technical college or have been unable to find a place locally - or be apprenticed to a company- have been faced with a new and serious problem of integration. Labour market experts essentially blamed inadequate educational or personal qualifications, but also the tendency of young people to stick with their chosen profession even in the absence of available places in that sector.

This explains certain important aspects of the issue; but the institutional, educational/economic and demographic facets need to be briefly looked at if light is to be shed on the many underlying reasons for these developments. A brief glance at longer-term statistics for the training market shows that in the early 90s this situation had not as yet emerged.

By the end of September most applicants have, or at least should have, found a place ([3]). But in the period 1992-1996, the balance between those looking for a place and places available tipped from a surplus of around 12,000 available places to a shortfall of around 4,600.

The demographic factor alone does not provide sufficient explanation

There is no doubt that the period between 1992 and 1996 saw a marked rise in demographic pressure on the training market, with a 10% increase in the number of young people in the typical starting age bracket of 15 (see Table A-6). Nevertheless, the 1996 figure for 15 year olds is still low when compared with the figure for the early eighties (24 percent down). The decrease in population was not enough in itself to ease the problem of transition as of 1996. During the 70s and 80s the Austrian education and employment system was in a position to accommodate much larger age groups in further education and training at the end of compulsory education, or to immediately provide them with employment. Other social and economic factors, of major relevance to the emerging problems, must therefore also have come into play. Improvements in transition options since 1996 can largely be attributed to support measures for the training market, financial relief for firms providing training, increased training provision (courses, foundations, preparatory courses, remedial courses for school leaving certificates), as well as to innovations in training (up-

([3]) A current, empirical, Austria-wide study shows that over 80% of graduates from the polytechnical schools (the main feeders for sandwich training) had already found a training place by the end of June 1998. The findings also reveal, however, that the rate of success amongst girls is much lower. This is also reflected in the autumn of the same year in the distribution of those still seeking a training place. Härtel, Peter. "Berufsinformation für eine Arbeitswelt im Wandel", in: *Erziehung und Unterricht*, No.9-10/2000, Vienna, P.1084.

Table 2:

Numbers seeking training places and "shortages", given for the end of September each year

Year	Numbers seeking training places	Available places	Training places: surplus or shortage	Training places per applicant
1992	3,957	16,086	12,129	4.1
1993	5,139	10,098	4,959	2.0
1994	4,986	7,750	2,764	1.6
1995	5,563	5,719	156	1.0
1996	7,924	3,282	-4,642	0.4
1997	9,032	3,791	-5,241	0.4
1998	7,323	2,311	-5,012	0.3
1999	4,957	2,616	-2,341	0.5
2000	4,906	3,098	-1,808	0.6

Source: AMS, Labour market data, various years; own calculations

dated/new professions that can only be accessed through training; new technical colleges).

Wealth of innovative market support measures since 1996

Despite the reduction of the negative balance on the training place market through a variety of measures ([4]) ranging from financial relief for companies providing training, market-supportive funding programmes for disadvantaged young people faced with difficulties in finding a place, to additional options (courses, foundations) ([5]) and completely new ones (new training-based professions, preparatory courses, training combines) – the number of people seeking a place at the end of September has remained stubbornly high. On the one hand, this points to the initial success of efforts to develop further training opportunities; on the other, it indicates the existence of an integration problem. The difficulty is that this problem is structural – not merely, or even primarily, caused by demographic factors. An initial list of non-demographic influences should include at least the following:

❑ Loss of low-skilled jobs; increasing social and cognitive requirements in terms of basic skills in training and technical colleges (even more so in schools leading to the Matura/University entrance).

❑ A structural shift in the economy and professions towards services, with trends reflected in the secondary sector according to the branch of industry (i.e. depending on use of technology).

❑ High labour costs ([6]) in apprenticeship training, and trainee allowances in trade and industry which in the 90s far outstripped the standard wage ([7]). These costs are only matched under specific conditions by expected returns, either during or after the training period (staff requirements; current job profiles with a high degree of branch and company-specific qualification; motivated, qualified applicants for training places, capable of achieving the training aims.)

❑ New ways of channelling educational flows and new educational ambitions amongst the population have led to changes in the number of people entering the various training pathways.

❑ High levels of training and large population cohorts during the 80s created a stock of people who have completed training.

❑ Outdated, non-existent or irrelevant job profiles in recruitment for branches with a growing need for differently qualified workers.

❑ The increase in the numbers of people completing upper vocational schools (BHS) is reflected in a rise from 5 to more than 14 percent of gainfully employed people in the age cohort comparison of 25-29 and 60-64 year olds. In spite of what is still only a minor overall share, this is expected to have an effect on training in specific areas of some technical and commercial professions.

Thus the backdrop to the problem, apart from changes in occupational requirements, also includes the educational expectations of young people. This was not that important an issue a generation back. But though expectations have changed, there has been no concurrent change in educational provision upon completion of compulsory education. Virtually all young people are expected to go on into training once they have reached the end of their initial education, whether in a school or in the form of an apprentice-

([4]) There is a point in drawing a distinction between innovatory measures and those which support the training market, although the classification of some measures is open to discussion. The numerous measures introduced by the government in close cooperation with the social partners in 1997 (Trainee package, Special Government programme), 1998 (National Employment Action Plan, Law guaranteeing training for young people), and 1999 (Tax reform 2000) are described with reference to this classification in: Schlögl, Peter. "Massnahmen und Initiativen im Zusammenhang mit der Situation am Lehrstellenmarkt. Hintergrund und Entwicklungen", in: *Erziehung und Unterricht*, Austrian Teaching Magazine, No.9-10/2000, Vienna, P. 1118ff.

([5]) See: Federal Ministry for Economic Affairs: 1999 Vocational Training Report, Vienna, May 1999: in 1998 for example just under 11 percent of trainee positions were supported by the labour market administration under various programmes, plus almost 2,500 young people on "training courses" (Lehrgänge) and a further 1,700 or so in "foundations" (Stiftungen), P.45f.

([6]) The importance of labour costs in the context of branch and vocation-specific business management factors for cost-benefit calculations was shown in a pioneering study conducted by the Institute of Higher Studies, see: Lassnigg, L. Steiner, Peter: Die betrieblichen Kosten der Lehrlingsausbildung (*Materialien zu Wirtschaft und Gesellschaft*, No. 67) Vienna, June 1997, P.23ff. The authors calculate that labour costs represent 74 percent of the gross cost of 182,100 ATS per year and per trainee in 1995.

ship. It is becoming increasingly uncommon to see people moving directly into working life without any form of training. In fact, this option flies in the face of the expectations of young people and their environment. As we have mentioned, it is questionable whether sandwich training (company + part-time vocational school) and in the vocational schools at upper secondary level has been able to adapt adequately and quickly enough to these expectations. It is precisely this mismatch which has given rise to the problems of transition at this transition. Moreover, there are several different interpretations as to the root causes of the problem.

Finally, parents' and young peoples' expectations clearly did not change in isolation. The change in values characterising educational behaviour is influenced by developments in educational policy (regional school expansion, the status of higher education) and the aggregate information people have about the labour market for various levels of education – which in Austria, as elsewhere, is affected by basic assumptions of educational economics ([8]) (see Table A-2). With the decline in job opportunities in the primary sector as well, as in commodities and other low-tech sectors, opportunities for employing untrained individuals have been structurally reduced. Certain basic academic and social qualifications are becoming increasingly important not only in the expanding services sector but in production-related fields as well.

There have been many different responses to this "shortage of training posts". Besides increased school-based provision – aimed particularly at remedial courses to allow people to acquire the school leaving certificate – various other options were brought in to supplement existing possibilities, in the form of *courses and foundations* and other support measures for the training market. Alternative approaches were also mooted, e.g. substituting a "vocational technical school" for sandwich training, although no consensus was reached on this. *Preparatory training* is currently being tried out on a very limited scale. This gives entry to the first year of training on the basis of support from the labour market administration, with the possibility of extending beyond one year or switching to mainstream training at a later stage.

Initial assessments of such courses and foundations indicate that for a large proportion of young people affected by the measures it should be possible to switch to standard apprenticeship training (courses: around 50%; foundations: around 30%, where foundations have been designed more specifically for less academically able young people and geared to the training period in its entirety). These findings can be seen as evidence of the importance of creating "bridges" and "cushions" between completing compulsory education and undertaking demanding training courses in companies and schools. Young peoples' circumstances and development have also changed. It is quite possible that they may only be ready for training at a later stage.

In many other countries people begin vocational training at a somewhat later stage than in Austria. At the time when serious problems were emerging on the training market, Austria had still to develop enough appropriate provisions: the conventional wisdom was that everyone who completed compulsory education could subsequently find a place in training.

A study of the output of upper secondary level pathways gives an additional slant on educational statistics. As long as the proportion of young adults *not obtaining the school-leaving certificate* (from upper secondary level) is in decline, or at least not showing any significant upturn, initial training integration can fairly be deemed a success (at least on this issue). Table 3 provides an empirical illustration of this, using the 1999 micro-census.

In 1999, upon completion of their post-compulsory education pathways, around 85% of Austria's 20-24-year-old resident population obtained a post-compulsory training diploma, with the figure for those with no recognised diploma lying at around 15 percent. Of these, however, an estimated 10% had gone on to training or to a further school but had not yet acquired their diploma ([9]).

By and large, therefore, this development – insofar as it can be depicted in the sta-

([7]) While standard wages grew in real terms by 9 percent between 1990 and 1996, trainee allowances rose by 21 percent in "industry", 15 percent in "trade, crafts and services", and 11 percent in "commerce", see: Schneeberger, A., Kastenhuber, B., "Kosten und Nutzen der Lehrlingsausbildung. Entwicklung, Struktur und Forschungsergebnisse" (a series of reports from the Institute of Educational Research, IBW, No. 105), Vienna, August 1997, P 9ff. Trainee allowances are jointly negotiated by the parties to collective agreements and, I feel, are a reflection of the competition for new trainees which built up over the long period where there was a shortage of people seeking places.

([8]) On the question of the overlapping of theory-related forecasts on context, income, employment and level of education, see: Williams, G. "The Economic Approach", in Clark, Burton R. (ed.), *Perspectives on Higher Education.* Berkeley-Los Angeles-London, 1987, P.81ff.

([9]) Schneeberger, A., Kastenhuber, B. "Berufliche Bildung im Strukturwandel. Perspektiven und Optionen", ibw-series of reports, No. 112, Vienna, 1999, P.102ff.

Table 3:

Resident population of working age, according to highest completed school education level, 1999

Age in Years	Compulsory education	Training	BMS	AHS	BHS	University*	Total	
	%	%	%	%	%	%	%	In 1000
20 - 24	15.3	39.5	9.4	19.1	15.0	1.7	100.0	475.8
25 - 29	16.2	39.9	9.9	11.0	14.7	8.3	100.0	600.5
30 - 34	17.0	43.4	11.0	7.7	10.5	10.4	100.0	715.0
35 - 39	18.5	43.1	11.7	6.7	9.4	10.6	100.0	700.1
40 - 44	23.1	41.6	12.1	5.5	7.6	10.0	100.0	593.5
45 - 49	28.7	40.3	10.5	4.7	7.0	8.8	100.0	517.1
50 - 54	30.4	42.1	9.6	3.8	6.4	7.8	100.0	484.3
55 - 59	34.4	38.1	10.7	5.0	6.2	5.6	100.0	524.2
60 - 64	47.0	31.4	9.2	3.3	5.3	3.8	100.0	376.2
20 – 64	24.3	40.4	10.6	7.5	9.3	7.9	100.0	4,986.7

Compulsory education: no school-leaving certificate on completion of 9 years' compulsory education.
Abbreviations: see Table 1
* Including university-related training institutes (such as teacher-training colleges)

Source: Statistik Austria; Micro-census annual results; own calculations

tistics – can be considered a success, especially if one bears in mind the high employment and relatively low unemployment rates among the under 25s in Austria. At the end of September 2000 only 4.4 percent of all 15-24 year olds in Austria were out of work, compared with an EU average of 16.4 percent ([10]). Against this backdrop, it is understandable that people were not expecting the new transition-related problems and that "fall-back" and "bridging" courses were non-existent until the mid 90s. Since then, however, some important instruments have in fact been created – although it will take time to produce any *sound* assessment of the effects of these measures – allowing for the evaluation of the new courses, foundations, training-based professions or preparatory courses, as well as remedial courses for obtaining the school leaving certificate.

The persistence of this relatively favourable climate in the face of rapid structural change and the effects of globalisation on the economy and the labour market can be attributed to the tremendous commitment shown by the social partners and political circles in Austria since the mid-90s, both nationally and regionally. Although the efforts of educational policy to improve the transition from compulsory education to further training (at the age of 15 or 16) are no longer as prominent, this nonetheless continues to be an area of intensive research and policy work. There is growing acceptance of the view that this transition represents a first stage for dealing with the structural problems linked to the move toward a services- and information-oriented society – problems which are hardly likely to be resolved by demographic factors alone.

Coping with structural change

The far-reaching changes in employment opportunities in the late 90s lie behind the change of educational pathways expected to ensure employment. In Austria, increased job opportunities in the *service professions* – to take one indicator – were reflected in a rise of over half a million in the number of people working in related professions between 1987 and 1998, against an overall increase from 3.4 to 3.8 million gainfully employed. Conversely, production-related professions lost around 50,000 jobs over the same period ([11]), albeit with some notable *exceptions* (e.g. construction, electrical engineering, machine operating and control).

([10]) Source: Eurostat

([11]) Schneeberger, Kastenhuber, 1999, loc. Cit., P.130.

Table 4:

Trends in trainee numbers by sector

Year	Trade, industry and Services	Industry	Commerce	Haulage	Transport + comm.	Tourism and leisure industry	Non-chamber area	Non-chamber §§ 29 and 30(*)	Total
1990	76,120	21,815	26,352	687	2,689	13,941	3,912	-	145,516
1991	74,499	21,327	25,080	759	2,711	12,767	3,956	-	141,099
1992	73,297	20,097	23,402	781	2,698	11,801	3,951	-	136,027
1993	72,449	18,076	22,251	728	2,565	11,562	3,728	-	131,359
1994	71,332	16,278	21,586	708	2,348	11,475	4,027	-	127,754
1995	69,805	14,850	20,212	708	2,126	11,363	4,313	-	123,377
1996	68,942	13,837	19,006	699	1,770	11,589	4,089	-	119,932
1997	69,307	13,973	18,684	682	1,832	12,145	5,006	-	121,629
1998	69,092	14,442	18,925	786	2,065	13,031	5,255	1,903	125,499
1999	68,493	14,275	19,119	875	2,259	13,515	6,316	2,499	127,351

*) Institutes under the Juvenile Courts Act and Special schools according to the Juvenile Welfare Act, as well as independent training institutes

Source: Austrian Chamber of Commerce, Trainee statistics

The change looks just as convincing when considered from a sector-by-sector perspective. Between 1985 and 1995 the tertiary sector's share of workers rose from 59 to 65 percent; the Austrian Economic Research Institute is forecasting that it will have risen to over 70 percent by 2005 ([12]). The proportion of workers in the secondary sector fell. According to the forecast for 2005 it should continue to fall, as growth in the technology branch of the secondary sector cannot compete ([13]) with the downward trend in the clothing and primary industries, to name but a few (see Tables A-4 and A-5).

These changes in employment trends have clearly changed the way in which companies approach training (e.g. decline in industry's share of apprentices from 15-11 percent across the board) and made new demands on the professional profiles nad curricula offered by initial training, sparking a need for innovation. In spite of variations from one branch to another, what largely explains the smaller share of industry in training can be interpreted as a reaction to the new requirements for skilled workers.

The picture for *commerce* is somewhat surprising, showing as it does an above-average drop in trainee numbers. This decline cannot be explained by a corresponding fall in employment. In this case it is probably due both to outdated occupational profiles – which take inadequate account of the qualifications trading companies require – and to alternative possibilities for recruitment (school leavers). The obvious interest of certain branches of trade, such as building material or garden centres, in professional profiles and training programmes with a greater branch-specific section, seems to corroborate the relevance of the first obstacle mentioned above. In the meantime, a series of revised training-accessed occupations have been introduced in the commercial sector, in particular a modular "Key training-based occupation: Retail sales", which includes a branch-specific specialisation as a compulsory subsidiary module.

There has been no sign of an above-average decline in the *tourism* sector; even in the late 90s, sufficient training places were available in most regions. This can be attributed to employment trends. Besides skilled technical workers or salespersons, a large number of whom are recruited from Austrian vocational training schools, there is also consistent demand for services in trade and tourism for which post-compulsory alternance training provides good prospects of finding employment.

([12]) Gudrun Biffl, Kurt Kratena. *Die Zukunft der österreichischen Berufs- und Qualifikationslandschaft bis 2005*, WIFO-österreichisches Wirtschaftsforschungsinstitut, November 2000, P.17.

([13]) G. Biffl, loc. cit., P.21.

A total of ninety-two new or updated training-based occupations have been created since 1996, as a result of which more than a third of the entire range of such trades has been brought up-to-date. ([14]) Apart from amending certain existing training-based occupations, for example through modularisation, the social partners and the Federal Ministry for the Economy and Labour have also created some completely new ones. Where initially the driving force had been the shortfall of training places, which triggered a type of shock wave in 1996, it was increasingly the growing need for IT skills – for which provision was most inadequate – that played a role in this development. New vocational training options will be required in order to help meet these needs.

After 1997 *new training-based occupations* appeared *in the ICT field.* One important step came in 1999 with the introduction of 4-year technical schools for data processing or ICT, which were previously lacking at this level. Thus, two important training routes into the information society were created at the level of initial vocational training, doing away with what until then had been an unavoidable linkage with the upper school/ Matura. Although at first it was greeted with scepticism, this diversification of training in the ICT sector is already bearing fruit:

In spite of consistent claims that training colleges in general are unattractive places in IT colleeges were quickly snapped up and indeed oversubscribed. Technical schools last four years, include a stint of "hands on" training, and are broken down according to two aims: "Data processing and organisation", and "Computing and communication technology";

At the end of October 2000 there were already more than 1,000 "EDP-technology" trainees, and well over 300 in "EDP-sales" ([15]). In addition to the broad-based "EDP technology" training-accessed profession, a further six IT trades were also introduced, offering more highly specialised training: IT-electronics; Communications technology- office communications; Communications technology- electronic data processing and telecommunications; Computing; IT-sales (Information and telecommunications sales).

Coping with new educational ambitions: integrated and cumulative dual qualifications

The particular attraction of the so-called "integrated dual qualification" pathway – the BHS in German – is clearly demonstrated by the increase in takers for upper secondary level pathways. The percentage of young people of tenth-grade age attending the BHSs has risen from 6 in the early 70s to 26 (see Table 1). An input/output comparison according to educational pathway shows, however, that there is an ongoing switch between upper secondary pathways (from upper to intermediate pathway; cf. Tables 1 and 3). To some extent this can be attributed to experimentation, encouraged by the possibility (in a system of compulsory education lasting 9 years) of completing secondary level 1 at the end of eighth grade. By and large, however, it is the reflection of a change in educational ambitions and corresponding educational policy concepts.

In addition to educational considerations and efforts to boost the numbers staying on in attractive albeit selective pathways at upper secondary level, training options providing and facilitating a "cumulative" dual qualification (post-vocational training university entrance) were plugged by all the powers-that-be in educational policy. For some young people with educational ambitions the educational objective set by the "integrated dual qualification" which begins at 14-15 is too broad. Further possibilities for "cumulative dual qualification" were created in the 90s for training and technical school leavers on completion of their initial training, in addition to the special options for young adults that had long been on offer. Under this system, previous achievements in technical and general education also count.

To ensure that intermediate pathways (training courses, technical schools) continued to be attractive, and to accommodate these new educational ambitions, new "cumulative" dual qualification itineraries (vocational training + Matura/Baccalaureate are acquired in succession) or

([14]) Austrian Chamber of Commerce. *Neue Lehrberufe*. Vienna, October 2000, P.1.

([15]) Source: Survey of chamber of commerce trainee places in the Federal Länder

new methods for accessing higher education were created: technical academies, vocational baccalaureate, and entrance to the technical universities, set up in 1994 with no Matura requirement. The vocational baccalaureate, introduced in 1997 for people with a training diploma, graduates of an intermediate vocational school lasting at least three years, or of a technical school in the nursing and medical/technical area, is already proving highly popular. In the year 2000, more than 4,000 people took relevant preparatory courses ([16]).

At the very heart of all these efforts and developments ranging from major regional expansion of vocational colleges to the introduction of the vocational baccalaureate lies the effort to encourage interchangeability (or, to use the international term, promote equivalence) between vocational and general education (parity of esteem). This is one of the central educational policy requirements in liberal democratic societies. The socio-cultural dynamics of modernisation are reflected in the major importance of access to higher and tertiary education, even along vocationally-oriented pathways. "Social inclusion" in further and higher education is ubiquitous, especially as prosperity increases. Even *Talcott Parsons* showed (at macro level) how socio-cultural factors are the irreducible driving forces behind modernisation ([17]).

Table 5:

Country-to-country comparisons of formal levels of education for 30-34 year olds according to Eurostat categories, 1997; figures as %.

Country	Low	Intermediate	High	Total
Austria	17.0	72.2	10.8	100
Germany	14.3	61.1	24.6	100
Finland	14.0	59.8	26.2	100
Sweden	14.9	55.7	29.5	100
Denmark	17.6	53.7	28.8	100
France	28.5	49.8	21.7	100
Netherlands	27.9	46.6	25.6	100
EU-15	*33.4*	*44.6*	*22.0*	*100*
Greece	36.3	40.6	23.1	100
Italy	50.3	39.8	9.9	100
Belgium	28.8	39.3	31.9	100
Ireland	37.7	33.9	28.4	100
United Kingdom	42.3	32.1	25.5	100
Luxembourg	47.8	30.6	21.6	100
Spain	52.3	21.7	26.1	100
Portugal	69.5	16.5	14.0	100

Source: EUROSTAT, Education in the European Union, 1998, P. G2

Globalisation

As a challenge to the education system, the globalisation of labour markets has both a formal/structural and a content-related dimension. While vocational education tends on the whole to preserve culturally related traditions, institutions deemed internationally to be part of Higher Education are coming under increasing pressure. This can be attributed to the issue of access to regulated professions but also to increased mobility of higher-skilled workers. Benchmarking processes are also playing a role here, questioning the conventional wisdom of the traditions of higher education.

Austria has been particularly affected in this respect. A glance at the formal education structure for 30-34 year olds shows that Austria stands out compared with the rest of Europe. Along with Italy, Austria has the lowest rate of higher education according to the ISCED classification (see Table 5); at the same time, however, it also has the highest rate of intermediate level education. The two findings are linked. Nonetheless, findings showing Austria to have a low proportion of graduates have sparked public discussion and have left young people, especially those at college or university, facing a major quandary. On the one hand, it is often said that in comparative international terms we have among the lowest numbers of graduates; on the other hand, people complain of poor employment prospects in traditional fields of graduate activity. Data on the professional and sectoral distribution of graduate employment shows this to be a source of real pressure for change (see Table 7 and annexed tables A-3 to A-5).

One of the reasons behind this low number of graduates in a highly developed economy is the role of the BHS (vocational upper schools), which allow people to complete short study cycles such as those commonly found in other countries. This

([16]) Schlögl, 2000, loc. Cit., P.1120

([17]) Parsons, Talcott. *The System of Modern Societies. (*German edition, Munich: Juventa Verlag, 1996; original edition: Englewood Cliffs, N.J.: Prentice Hall, 1971.

Table 6:

Country-by-country comparison of schooleaver figures for post-secondary education sectors (1998).

Reference	Schooleavers in relation to population of comparable age according to educational pathway, in % (round figures)					
	Post-secondary, but not tertiary education	At least 2 years of non-university tertiary education	3- 5 years university studies	Long or very long studies	Further certificate following short initial studies	Total columns 2 - 5 = Post secondary figure
Austria	24	11	1	13	-	49
OECD country average	9	11	18	6	4	44
Difference	*15*	-	*-17*	*7*	*-4*	*5*
USA	7	9	33	-	15	49
Japan	-	30	28	-	3	58
Finland	1	28	16	15	1	60
United Kingdom	-	11	33	2	12	46
France	1	18	18	6	6	43
Germany	16	13	5	11	-	45
Netherlands	1	1	33	1	2	36
Switzerland	16	-	8	12	1	36
Italy	2	-	1	14	3	17

Source: OECD 2000; own calculations

is supported by the numbers coming out of the BHS, e.g. in the technical and scientific field, in office, banking and administrative professions, and in executive positions in administration and the economy (see Table A-3), particularly when compared with the distribution of graduates from university or university-related institutes (NUS). Within the education system, the special role of the BHS is reflected in a well-above-average share of an area which is very hard to classify, and which lies somewhere between the upper secondary level and tertiary pathways. Table 6 clearly shows this peculiarity. In the "post-secondary but not tertiary education" category, Austria lies 15 percentage points above average, while at the same time it is 17 points down as far as short university courses are concerned.

A quick look at the results of the last national census, which is the best reflection of the professional distribution of those coming out of various education channels, clearly shows how, on the one hand, the majority of BHS leavers go into highly qualified employment, whilst on the other there is a strong presence of university leavers, and even more so of those graduating from university-related institutes in the publicly regulated service professions (see Table A-3). The splitting up of tertiary pathways by profession and sector, and the proportionately high absorption of tertiary education output in publicly financed sectors – which went on for decades – is increasingly being questioned in the 90s on economic grounds. In order to offer sufficient employment opportunities for graduates in the face of ever-increasing student numbers, changes were first made *outside* the traditional university sector (introducting a technical sector of higher education in 1994; private universities in 2000). However, in the longer term these changes are unlikely to manage to ease the pressure for modernisation facing universities today.

During the 90s huge pressure from the labour market towards increased employ-

Table 7:

Sectoral distribution of the gainfully employed according to level of education, 1994 - 1999

Economic sector	Compulsory education	Training	BMS	AHS	BHS	UNI et al.	Total
1994	**%**	**%**	**%**	**%**	**%**	**%**	**%**
Agriculture and forestry	14.8	5.1	6.1	1.3	1.8	0.6	7.0
Secondary sector	36.5	40.3	21.7	15.4	28.8	14.1	32.8
Predominantly private services	33.7	39.7	36.9	45.2	38.2	23.4	36.6
Predominantly public services	15.0	14.9	35.3	38.0	31.1	61.9	23.6
Total	100.0	100.0	100.0	99.9	99.9	100.0	100.0
in 1000	1 086.5	1 520.5	411.0	206.0	341.6	315.0	3 880.5
1999	**%**	**%**	**%**	**%**	**%**	**%**	**%**
Agriculture and forestry	13.1	5.0	6.1	1.7	2.0	0.5	6.0
Secondary sector	35.0	39.1	19.5	14.6	24.7	12.0	30.7
Predominantly private services	36.1	40.5	38.2	47.5	40.5	27.6	38.5
Predominantly public services	15.8	15.4	36.2	36.2	32.9	59.8	24.8
Total	99.8	100.1	100.2	99.8	100.1	99.8	100.0
in 1000	856.6	1 655.4	422.2	239.8	377.1	358.1	3 909.0
%-Point difference: 1994 – 1999							
Agriculture and forestry	-1.7	-0.1	0.0	0.4	0.2	-0.1	-1.0
Secondary sector	-1.5	-1.2	-2.2	-0.8	-4.1	-2.1	-2.1
Predominantly private services	2.4	0.8	1.3	2.3	2.3	4.2	1.9
Predominantly public services	0.8	0.5	0.9	-1.8	1.8	-2.1	1.2
Total*	0.0	0.0	0.0	0.1	0.2	-0.1	0.0
1994-1999: in 1000	-229.9	134.9	11.2	33.8	35.5	43.1	28.5

*Differences attributable to rounding off UNI et al. = University. College and university-like establishments Other abbreviations: see Table 1

Source: Statistik Austria. Micro-census- annual results; own calculations. see also Tables A-4 and A-5

ment, closely related to issues of readjustment, was really making itself felt on graduates (see Table 7). Within five years the percentage of people coming out of universities and university-type training institutes grew in the predominantly private sector from around 23 to 28, falling in the public sector from 62 to barely 60. This economic pressure for change is reflected in political and ideological discussions e.g. on questions of teacher employment. On the one hand, economically justifiable financial limitations to the continued expansion of academic services in the public sector have been reached; on the other, the rise in employment opportunities due to computerisation and globalisation are mainly experienced as an acute shortage of relevant occupational profiles. Such a development will require the curricular and structural modernisation of the universities and of the entire post-secondary education sector. Educational policy circles unanimously share this view in principle, but not in the details.

Although concerns were expressed in the past about excessively low numbers of university graduates and the possible com-

petitive disadvantages related to human capital, until the 90s such concerns were not convincing enough to lead to any far-reaching structural changes at upper secondary level and in universities (although technical universities were introduced in 1994). Company surveys and other labour market analyses have turned up a very limited number of companies who have difficulty finding university graduates with a technological bent. Reacting to similar findings, in his summary of a study examining the state of the economy, a leading professor of economics spoke of the lack of awareness among respondents of the *need to improve* the number of graduates in the economy ([18]).

I believe that possibly the most important motivating force behind the diversification of the university sector in the second half of the 90s is the increasing number of students passing the Matura (university entrance qualification). The pressure to modernise cannot be so squarely or one-sidedly attributed to techno-economic changes. There is no doubt that globalisation and the demand for skilled ICT workers have created new requirements. But to gain a broader understanding of the phenomenon we must also take into account the trend towards greater inclusion, and therefore broader participation, in the competitive processes of higher education and professional careers.

Nor do ICT qualification bottlenecks provide any clear-cut counterexample. Since 1999 companies in the *IT sector* have made, and are still making, major efforts to stop the existing gap between demand for and availability of skilled IT workers on the labour market. However, what this more careful investigation has highlighted above all else is the wish to see more graduates from appropriate mainstream vocational high schools (BHS) (14-19 year olds) ([19]), their special college version ([20]), and from the recently-introduced technical universities, and to see obstacles to the rapid international recruitment of staff removed. There was never any real question of producing more graduates from long university courses (an average of 6-8 years until first graduation). Nevertheless, the introduction of a baccalaureate in IT studies is something which is currently being looked into in the wake of requests from the universities.

([18]) Tichy, Gunther "Technologie und Bildung" in Heinz Handler (ed.), *Wirtschaftsstandort Ósterreich. Wettbewerbstrategien für das 21. Jahrhundert*. Federal Ministry for Economic Affairs: Vienna, February 1996, p.109.

([19]) E.g. HTL in data processing and organisation.

([20]) This requires an AHS-Matura or general university entrance certificate, but does not count as tertiary education.

Annex of Tables

Table A-1:

People in Work (Labour Force Concept) by age and highest completed school education, 1999

Age in Years	Compul-sory education	Training	BMS	ahs	BHS	University**	Total	
	%	%	%	%	%	%	%	in 1000
15 - 19	70.8*	17.3	6.9	3.1	1.9	0.0	100.0	201.8
20 - 24	14.3	51.6	11.0	7.4	14.1	1.5	100.0	343.0
25 - 29	14.4	43.9	11.0	7.5	14.3	9.0	100.0	503.1
30 - 34	14.1	45.1	11.0	7.3	10.9	11.5	100.0	620.4
35 - 39	16.2	44.0	11.8	7.0	9.9	11.1	100.0	613.5
40 - 44	20.4	42.8	12.3	5.5	8.0	10.9	100.0	513.9
45 - 49	25.3	41.8	10.6	5.0	7.6	9.7	100.0	433.3
50 - 54	25.6	44.1	9.6	4.1	7.2	9.3	100.0	369.4
55 - 59	25.8	39.4	9.8	6.0	8.7	10.3	100.0	236.6
60 - 64	38.4	28.0	9.3	3.6	4.8	16.0	100.0	43.4
65 - 69	65.9	9.1	9.0	3.5	1.3	11.1	100.0	15.4
70 - 74	57.0	14.6	7.4	2.5	2.8	15.8	100.0	8.6
75 and over	49.7	15.6	5.3	3.3	6.8	19.3	100.0	6.7
Total	21.9	42.3	10.8	6.1	9.6	9.2	100.0	3909.0

Compulsory education: not having completed any form of training after finishing the 9 years of compulsory school
Abbreviations: see Table 1
*Of these almost 127 400 or 89 percent were trainees (young people undergoing alternance training)
**including university-related training institutes (such as Teacher Training Colleges)

Source: Statistik Austria; Microcensus annual results; WK Österreich, Trainee statistics; own calculations

Table A-2:

Indicators of labour market situation after completion of formal education, 2000

Level of education	People in work 1998*)	Unemployed 6/2000	Registered vacancies 6/2000	Rate of unemploy-ment 6/2000**)	Requested posts 6/2000
Compulsory education	852 800	70 741	20 784	8.3	3.4
Training	1 628 000	57 589	16 070	3.5	3.6
BMS	424 600	10 863	1 140	2.6	9.5
AHS	208 700	4 730	21	2.3	***)
BHS	374 200	7 564	1 554	2.0	4.9
University. College	336 000	4 691	436	1.4	10.8
Unknown	-	209	-	-	-
Total	3 824 300	156 387	40 005	4.1	3.9

*) Concept of earning a living
**)Unemployed as a percentage of the total number of people in work
***) No point in calculating

Source: AMS-Arbeitsmarktservice; Statistik Austria; own calculations

Table A-3:

People in work by vocational category and highest completed level of training, 1991; Figures in percentages by column

Vocational category	Compulsory education	Train-ing	BMS	AHS	BHS	Univer-sity	NUS*	Total
	%	%	%	%	%	%	%	%
Agriculture and forestry	9.2	5.0	8.5	1.1	1.7	0.8	0.3	6.0
Manufacture of raw materials	6.5	4.7	1.4	0.8	0.6	0.2	0.1	4.1
Processing	16.6	24.5	6.4	3.3	3.5	0.8	0.2	16.0
Construction and related professions	7.1	7.1	1.3	0.6	0.6	0.2	0.0	5.2
Haulage and transport, machine operating	13.4	11.8	4.4	6.5	3.2	1.0	0.3	9.8
Commercial management, advertising, trading, sales	8.6	13.4	9.1	10.4	8.4	5.3	0.7	10.4
Services, armed services	23.8	14.9	13.2	13.5	6.5	2.6	3.1	15.9
Office, bank and administrative	8.1	11.5	33.8	33.9	31.0	7.2	2.9	15.1
Technical and scientific	1.0	2.8	4.3	6.4	26.7	13.3	0.4	4.5
Medical	0.2	0.2	7.7	5.1	0.9	16.6	4.5	2.4
Teaching, education	0.6	0.5	4.6	6.3	7.8	22.0	81.8	4.3
Administrative and economic management	0.6	1.5	2.4	4.4	5.8	11.6	0.3	2.2
Legal, arts and social sciences. spiritual welfare and social services, culture, publishing and sports	1.3	1.0	2.4	6.7	2.7	17.9	5.3	2.6
Temporary (no detail), employed (no detail)	3.0	1.1	0.6	0.9	0.5	0.5	0.1	1.5
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Absolute in 1000	1084	1492	480	158	65	198	65	3684

BMS = Intermediate vocational school AHS = General educational upper school
BHS = Vocational upper school. NUS = Non-university post-secondary training (university-related training institutes: Colleges)

Source: Statistik Austria, 1991 Census; own calculations

Table A-4:

Sectoral distribution of employed people by level of education, 1994

Sector of the economy	Compulsory education	Training	BMS	AHS	BHS	UNI etc.	Total
	%	%	%	%	%	%	%
Agriculture and forestry	14.8	5.1	6.1	1.3	1.8	0.6	7.0
Energy and water supply, oil refining, mining	0.9	1.7	1.1	0.7	1.6	1.2	1.3
Food and tobacco	2.8	3.1	1.5	0.8	1.2	0.5	2.3
Textiles, clothing, footwear	4.0	1.7	1.7	1.0	1.4	0.7	2.2
Paper, cardboard; publishing	2.9	3.1	1.9	1.9	1.8	1.4	2.6
Chemicals, rubber, synthetics	2.1	1.9	1.4	1.7	2.4	1.3	1.9
Glass; stoneware	1.3	1.2	0.7	0.3	0.9	0.3	1.0
Metal working and processing	3.8	5.1	3.2	1.5	2.9	1.5	3.9
Machine and vehicle construction	2.6	4.4	1.8	1.8	4.7	1.4	3.3
Office machinery, DP-apparatus, electrical engineering	2.3	2.5	1.6	1.7	4.5	2.7	2.5
Furniture, jewellery, musical instruments, sports apparatus	2.6	3.0	1.6	0.8	1.2	0.5	2.3
Construction	11.3	12.7	5.2	3.2	6.2	2.6	9.6
Secondary sector	36.5	40.3	21.7	15.4	28.8	14.1	32.8
Commerce, maintenance and repair	13.4	20.6	13.4	11.9	10.9	6.1	15.3
Accommodation and catering	8.3	5.5	4.4	4.0	4.0	1.0	5.6
Transport + communications	6.2	8.4	4.6	7.5	5.2	1.5	6.5
Banking and insurance	1.3	2.2	7.7	11.5	9.4	3.7	3.8
Real estate; letting of moveable property	4.6	3.0	6.8	10.2	8.6	11.1	5.4
Predominantly private services	33.7	39.7	36.9	45.2	38.2	23.4	36.6
Public administration, national defence, state admin.	3.8	5.7	11.8	14.8	9.2	7.1	6.7
Teaching	1.6	1.0	4.2	7.5	10.9	33.8	5.4
Health, veterinary and social	5.4	3.9	15.0	8.6	7.7	13.6	6.9
Other public and private services	4.2	4.3	4.3	7.1	3.2	7.5	4.6
Predominantly public services	15.0	14.9	35.3	38.0	31.1	61.9	23.6
Total	100.0	100.0	100.0	99.9	99.9	100.0	100.0
In 1000	1086.5	1520.5	411.0	206.0	341.6	315.0	3880.5

UNI etc. = Universities, Colleges and university-related training institutes
Source: Statistik Austria, Microcensus-Annual results; own calculations

Table A-5:

Sectoral distribution of employed people by level of education, 1999

Sector of the economy	Compulsory education	Training	BMS	AHS	BHS	UNI etc.	Total
	%	%	%	%	%	%	%
Agriculture and forestry	13.1	5.0	6.1	1.7	2.0	0.5	6.0
Energy and water provision, oil refining, mining	0.9	1.7	1.1	0.5	1.7	0.8	1.3
Food and tobacco	2.7	2.7	1.4	1.0	0.9	0.7	2.1
Textiles, clothing, footwear	3.2	1.4	1.1	0.7	0.8	0.3	1.6
Paper, cardboard; publishing	2.7	2.7	1.8	2.0	1.7	1.4	2.3
Chemicals, rubber, synthetics	1.7	2.0	1.2	1.3	2.4	1.8	1.9
Glass; stoneware	0.8	0.9	0.6	0.3	0.6	0.2	0.7
Metal working and processing	4.3	5.5	2.4	1.8	3.4	1.3	4.1
Machine and vehicle construction	2.3	4.1	2.3	1.1	3.3	1.8	3.0
Office equipment, DP-equipment, electrical engineering	2.1	2.3	1.8	2.5	4.3	2.4	2.4
Furniture, jewellery, musical instruments, sports equipment	2.3	3.1	1.2	0.4	0.8	0.4	2.1
Construction	11.8	12.8	4.6	2.9	4.9	0.8	9.2
Secondary sector	35.0	39.1	19.5	14.6	24.7	12.0	30.7
Commerce, maintenance and repairs	13.7	20.4	14.7	14.1	12.3	6.6	15.9
Accommodation and catering	9.2	6.0	4.7	5.7	3.3	1.0	5.8
Transport + communications	6.2	8.3	4.8	7.2	6.2	3.0	6.7
Banking and insurance	1.5	2.1	7.5	9.5	7.7	3.8	3.7
Real estate; letting of moveable property	5.5	3.7	6.6	11.0	11.0	13.2	6.4
Predominantly private services	36.1	40.5	38.2	47.5	40.5	27.6	38.5
Public administration, national defence, state admin.	3.3	5.1	11.5	13.1	8.2	7.2	6.4
Teaching	1.7	1.4	3.9	7.3	11.6	30.1	5.7
Health, veterinary and social	5.6	4.9	16.5	8.2	9.2	15.5	7.9
Other public and private services	5.2	4.0	4.4	7.5	3.8	7.0	4.8
Predominantly public services	15.8	15.4	36.2	36.2	32.9	59.8	24.8
Total	100.0	100.0	100.0	100.0	100.1	99.9	100.0
In 1000	856.6	1655.4	422.2	239.8	377.1	358.1	3909.0

UNI etc. = Universities, Colleges and university-related educational establishments
Source: Statistik Austria, Microcensus-Annual results; own calculations

Table A-6:

Changes in the 15 year old age group, Population extrapolation 1981 – 1999, Forecast 2015

Year	Lower variant of the forecast	Population extrapolation – Main variant of the forecast*	High variant of the forecast	
1981		128 658		Population Figures
1982		127 355		
1983		126 300		
1984		123 319		
1985		116 784		
1986		111 108		
1987		106 375		
1988		99 697		
1989		95 943		
1990		94 608		
1991		91 233		
1992		88 969		
1993		88 846		
1994		89 281		
1995		93 065		
1996		98 016		
1997		98 900		
1998		96 345		
1999		94 643		
2000	94 432	94 448	94 464	Population Forecast
2001	94 209	94 265	94 320	
2002	93 940	94 034	94 133	
2003	94 211	94 357	94 511	
2004	94 361	94 564	94 780	
2005	94 611	94 874	95 153	
2006	96 202	96 539	96 896	
2007	97 340	97 746	98 195	
2008	97 540	98 036	98 565	
2009	96 076	96 666	97 296	
2010	93 020	93 710	94 443	
2011	91 491	92 286	93 134	
2012	89 400	90 320	91 282	
2013	85 768	86 824	87 922	
2014	82 882	84 078	85 316	
2015	81 877	83 229	84 623	

* average migration and fertility
Source: Statistik Austria, Population extrapolation and forecast

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Developments in the Irish education and training system: the case of the Leaving Certificate Applied

This article provides an overall picture of the Irish post-compulsory education system and the context in which it has developed. The *Learning Certificate Applied (LAC)* is a new member of the family of Irish *learning certificates* (certificates of completion of secondary studies) which had previously comprised the *established leaving certificate (*general) and the *leaving certificate vocational programme* (technological). The new certificate integrates revolutionary elements within a rather restricted educational horizon. Though tht author believes in the LCA as a force for integration, he raises questions about the essence of this type of curriculum. Will the LCA function as a Trojan horse, helping to integrate some young people into a training pathway that leads to qualifications, or is it merely a means of re-establishing, via labour market demand, an equilibrium between school-leavers and those continuing their studies?

Irish Context

The current population of Ireland is 3.75 million. The OECD Examiners (1991,13) pointed out that Ireland 'is characterised by its youthfulness. Over half the population is under 25, and 30.5% is under 15...Apart from Australia and Turkey, Ireland is the only OECD country to have experienced a rising birth-rate until very recently... thus as school enrollments were on the decrease almost everywhere else, enrollments in Ireland were swiftly increasing, and the pressure on resources was almost unsustainable'.

Heavily influenced by Ireland's participation in the OECD's Washington Conference of 1961 and the ensuing *Investment in Education Report* of 1966, and supported by World Bank funding, Irish education gradually came to be viewed in terms of Human Capital production. The expansion of our education system has been remarkable, with numbers in second level education growing from 132,000 in 1965 to 368,160 in 1997/8[1] and with retention rates (up to the end of second level schooling) rising from 20% in 1960 to approximately 83% at present[2] - higher than the OECD average. The 1995 Education White Paper set a target of at least a 90% completion rate by the end of the 1990's (Ireland:1995,50). The number of students in higher education has grown from 18,500 in 1965 to 112,182 in 1997/8 with more than 40% of the school leaving age cohort now progressing to third level education (see NESC:1996,8). As the size of the age cohort falls and more college places are provided, this proportion is likely to be more than 50% in the near future.

During the eighties unemployment rose steadily in Ireland, reaching in excess of 19% (300,000) in 1988. Within the EU this was second only to Spain (see Commission of the European Communities: 1989, 14), giving Ireland the lowest working population (in percentage terms) in the EU. Over the past ten years the unemployment rate has dropped dramatically, with the official unemployment rate standing at 5.6% for 1999, representing 81,500 unemployed and has dropped below 5% in the current year.

Up to 1965, Ireland had a dual or bi-partite post-primary system of education. The main element was the traditional, privately owned secondary school, offering an academic, humanistic curriculum leading on to higher education and employment in the public service. Such schools were attended primarily by upper and middle class students and enjoyed much higher status than the alternative system of locally controlled vocational education which was of two years duration and which lead to technical education, apprenticeships and entry to the general workforce. With the new emphasis on investment in education in the mid-sixties, the government allowed the vocational schools to offer the full range of subjects and examinations previously offered in secondary schools only. Comprehensive and community schools were established in the seventies, with provision for greater local involvement in school management. Consequently, despite its size, Ireland has a complex system of post-

(1) Based on the Department of Education's annual statistical reports.

(2) They are higher for young women.

primary schools, falling into three main types: secondary (attended by some 60% of students), vocational schools/community colleges (which are attended by some 25%) and the community/comprehensive schools with the remaining 15%. All schools offer a comprehensive curriculum, though there is less emphasis on vocational subjects in secondary schools than in the other two sectors while most of the Post Leaving Certificate Courses (PLC's) are provided in the vocational school sector.

VET provision in Ireland

Certain aspects of the Irish situation are of particular relevance to Vocational Education and Training (VET).

❑ Irish students finish second level schooling at 17, which is some two years younger than in most member states, and many complete university at 20 having taken 3 year degree courses.

❑ Up until recently Irish employers had the option of hiring workers home from the traditional migratory destination in neighbouring Britain, with the result that we have not experienced specific skill shortages.

❑ Levels of educational attainment on the part of young Irish adults (25-34 years of age) were significantly less than the OECD average for 1991 but these figures do not reflect the improvements in educational attainments that have taken place recently.

❑ The opportunities for education are very unevenly distributed across Irish society (see, for example, Clancy:1995; Clancy and Wall:2000). Hannan et al (1995,336) have drawn attention to the 'sharp contrast between the returns to taking or not taking qualifications in Ireland and the UK. These differences in returns are consistent with the rapid increase in qualification levels in Ireland and the slow advance of qualifications in the UK during the 1980's... It seems most likely that the differences come from the side of the labour market'.

❑ Education expenditure rose from 16% of total government expenditure in 1965 to 20% in 1993 and from 3.2% of GNP in 1965 to 6.5% in 1992. While these figures are around the OECD average, Irish expenditure per pupil is much lower than in other member countries (see OECD: 1995, 73).

The OECD (1984) review of youth employment opportunities in Ireland stressed the need for special attention to under-educated and disadvantaged young people and expressed concerns about the career guidance service, gender stereotyping and the limited scale of pre-employment courses on offer. Not surprisingly, the promotion of vocational education emerged as a major issue in the Ireland of the eighties, based on the belief that high levels of skill would make for more rapid economic growth. Lewis and Kellaghan (1987,12) point out that policy statements of the time[3] were di-

This article by Jim Gleeson was originally written as a contribution to the Agora IX conference on Alternative Education and Training Processes, held in Thessaloniki on 26-27 June 2000.

Agora Thessaloniki is the Cedefop forum which aims to bring together players in our field - i.e. Initial and Continuing Vocational Training – who exhibit a wide range of interests, ideologies and professional horizons. The idea is to work on developing what brings us together and to narrow the remaining gaps. The aim is to build bridges, and create a common language, between academic researchers, decision makers, employees and their representatives, employers and their representatives, independent workers, teachers, trainees, et. al.
The issue Agora IX raised was whether it was wise to construct parallel training systems and second chance schools or whether it was in fact preferable to strengthen from the outset the means employed in primary school – first chance schools – to block school failure. Agora IX's was therefore largely concerned with the choice between integrating all groups into a common school, and creating different schools, adapted to specific group needs.

Agora IX reached two main conclusions:

1. Lifelong learning makes the distinction between initial schooling (first chance) and alternative schooling (second chance) irrelevant. What is important is to transform attitudes to learning and to education in general; to work on establishing a common culture and a mentality which is open to lifelong learning.

2. Cooperation between various partners - enterprises, local authorities, schools and initial and continuing vocational training institutes - is absolutely necessary to the success of this long-term project, the aim of which is to allow everyone to develop their potential and abilities, whatever their point of departure.

Jim Gleeson's text is a very representative illustration of the Agora IX debate.

(3) such as the Programme for Action in Education (1984-1987) and Building on Reality, the Fine Gael/Labour Programme for Government (1984)

rected more to 'the need to develop *alternative* curricula in post-compulsory education than to the reform of traditional curricula, as earlier statements had been. They showed a greater concern for the education-work nexus and for students who were performing poorly in the system and had poor employment prospects'.

Vocational Education and Training in Ireland is primarily the responsibility of two Departments[4] - Education and Science on the one hand and Enterprise, Trade and Employment (formerly Labour) on the other. FÁS, the industrial training and employment agency, (under the Department of Enterprise, Trade and Employment) provides a myriad of programmes ranging from apprenticeships to Community Training Workshops for under-25's to Community Education Programmes for the long-term unemployed. It also has a placement and guidance function for those who have left education. CERT, the training agency for the Hotel, Catering and Tourism authority and TEAGASC, the advisory and training agency of the agricultural and food sectors, provide training programmes in their own specific areas.

NESC (1993, Chapter 4) considered the adequacy of current vocational education and training policy in Ireland in comparison with countries employing the dual system such as Denmark and the Netherlands. This study found that, while Ireland lags behind many European countries, particularly Denmark and the Netherlands, in its vocational education provision, 'this situation may also confer advantages if the opportunity is taken to draw on the experiences of other countries... in building a system that is comprehensive and flexible' (ibid,128). The report concluded that one of the most strikingly distinctive features of the Irish vocational education and training system from an international comparative perspective is the 'limited amount of structured training which occurs in the workplace and the peripheral role of employers in the education and training system'. (ibid,222)

During the nineties there has been a proliferation of policy statements in relation to Education and Training. The European Commission's (1994) White Paper identified the essential skills for integration into society and working life in terms of: 'a mastery of basic knowledge (linguistic, scientific and other knowledge) and skills of a technological and social nature, that is to say the ability to develop and act in a complex and highly technological environment, characterised in particular by the importance of information technologies; the ability to communicate, make contacts and organise etc. These skills include, in particular, the fundamental ability to acquire new knowledge and new skills - "to learn how to learn" throughout one's life.'

Three relevant White Papers have been produced in Ireland. The Education White Paper, *Charting Our Education Future* (Ireland:1995a) highlighted the importance of vocational education and training in the promotion of national economic growth and development. In October 1996 the Department of Enterprise and Employment published its White Paper, *Science, Technology and Innovation,* (Ireland, 1996a) against the background of the Tierney Report, (STIAC), which was entitled *Making Knowledge Work for Us*[5] (Ireland,1995b). It identifies a list of desirable skills which mirrors those identified in the 1994 EU White Paper, with particular emphasis on 'the need for citizens and companies to engage in continuous and life-long learning.' (ibid,120). The third part of this Irish trilogy of White Papers, *Human Resource Development* (Ireland:1997), was also prepared by the Department of Enterprise and Employment. Concern is expressed there in relation to the weak tradition of vocational education in Irish secondary schools (ibid,45). It is suggested that the relatively high proportion of early leavers results in an enforced emphasis on remedial education and initial reintegration and training which 'diverts a high proportion of national training resources from providing for the high-level skill requirements needed to help Irish firms to be more competitive' resulting in lower levels of employment creation.

Stokes and Watters (1997,11) identify the key principles of current vocational training in Ireland as access for diverse target groups, provision for recognition of their achievement through a comprehensive national framework of certification, provision for progression through the system, the establishment of national standards of

(4) The Departments of Agriculture and Food, Tourism, Sport and Recreation, Justice, Equality and Law Reform, Health and Children and the Marine and Natural Resources are responsible for vocational training in their sectors.

(5) One notes the emphasis on the economic significance of knowledge and on information as a commodity in the context of the Information Society (see Office for Official Publications of the European Communities: 1995, 4ff). This same mentality is reflected for example in the title of the Report of the Science Technology and Innovation Advisory Council, Making Knowledge Work for Us (Ireland; 1995).

achievement quality, relevance and partnership, the location of the learner at the centre of the education and training process and an emphasis on lifelong learning.

The Impact of the European Social Fund (ESF) on VET in Ireland

'It is clear that, without the support of the ESF, IVET in Ireland would be a pale shade of what it actually is' (O'Connor: 1998,66). During the sixties and seventies increasing rates of unemployment resulted in the restructuring of the ESF, with the result that over 90% of the total funding went on vocational training measures aimed at specific categories of workers and at tackling structural unemployment (Hantrais,1995). By 1977 the enlarged Community found it necessary to broaden the targeting of the ESF - with particular reference to the most at-risk groups such as unemployed young people under 25, especially first job seekers. Ireland's response was to develop Pre-Employment Courses (PEC's) in vocational, community and comprehensive schools and certain courses in Regional Technical Colleges (RTC's) were also given ESF support.[6] It was at this time also that certain regions of the European Community, including both parts of Ireland, were designated as Category 1 disadvantaged.

As it became clear that youth unemployment across Europe was not a transitory phenomenon and that transition from school to work was a complex matter, the personal development of young people became the major concern. The emphasis shifted from providing discrete job-specific skills towards a broad approach to training in general skills, reflecting the need for young people to be adaptable at a time when traditional categories of jobs and skills were disappearing. In this context, the European Commission's Transition from School to Work Projects[7], were to exercise enormous influence on the Irish post-primary curriculum. These initiatives were targeted at early school leavers and at those for whom the academic senior cycle was unsuitable (see, for example, Granville:1982; Crooks:1990; Gleeson:1990).

The introduction by the EU of the Social Guarantee in 1982, to provide a training guarantee for all young people and a dynamic response to the problem of youth unemployment, meant that at least 75% of the European Social Fund (ESF)[8] was ear-marked for spending on schemes which would enhance the employability of young people under 18 by providing a combination of vocational training and work experience and of unemployed persons in the 18 to 25 age bracket. Vocational Preparation and Training Programmes (VPT) - replacing the earlier PEC's and along very similar curriculum lines - were introduced to Irish second level schools in the summer of 1984[9]. These were particularly significant in Ireland because the 'academic' secondary schools were permitted to introduce the new VPT programme for the first time in September 1984 as a result of the extension of ESF aid[10].

Following the adoption of the Single European Act in 1987, the Commission had discretion over approximately one third of the allocation to the Member States and European funding increasingly began to shape Irish education policy. Because Ireland enjoyed Objective 1 status, its level of ESF funding doubled between 1989 and 1993 to 1.5 BECU - almost 8% of the total amount available from the ESF. The adoption of the principle of additionality meant that the European Structural Funds could not be used merely to replace national funds and that there should be an equivalent increase in overall national spending on relevant activities. On top of the Structural Funds, some 15% of the total budget was retained to fund Community vocational education and training initiatives such as EUROFORM, NOW, HORIZON, PETRA. Many of these initiatives resulted in the development of alternative forms of VET provision as well as facilitating transnational work experience for VET participants (see, for example, Gleeson and McCarthy, 1996).

An important change in the eligibility rules for ESF, introduced in 1988, was of great significance for Ireland because it meant that young people above the age of compulsory schooling who were being trained within the formal education system qualified for ESF support. O'Connor (1998, 62) comments that 'this effectively finally

([6]) PEC's were initially confined to vocational, community and comprehensive schools (which would have catered for some 30% of all second level students at the time) and were aimed at those students who would otherwise have left school early in search of employment. Some 1800 students, mostly males attending vocational schools, participated in the first year.

([7]) Transition 1 ran from 1978-1982 and Transition 2 from 1983-1987.

([8]) Which was part of the European Structural Fund budget. Two of the five objectives of the Structural Fund were the sole responsibility of the ESF - combating long term unemployment and ensuring a start for young people in working life.

([9]) Young people taking Middle Level Technician (MLT) courses in Regional Technical Colleges (RTC's) were the beneficiaries in the 18-25 age range.

([10]) Of the 380 schools (out of some 800) that offered VPT programmes in the first year, 118 (out of some 550) were secondary schools.

abolished the "ancient dichotomy"[11] between education and training'.

On foot of the key principles of the EU White Paper of 1994, ESF aid to Ireland for the period 1992-1999 was doubled again, with the result that Ireland was granted some 930 Million ECU for programmes in second and third level education. This enabled a cash-strapped ministry, still in the throes of having to cope with rising numbers in post-primary, to support the introduction of vocationally oriented initiatives such as the Leaving Certificate Applied (LCA) and the Leaving Certificate Vocational Programme (LCVP) at senior cycle (15-18). The Minister for Education, Micheál Martin, indicated in a radio interview in 1998 that he was aiming at a target of 30% participation by all senior cycle students in these vocational alternatives in 2000.

Social partnership at the national level

Partnership has been an absolutely central plank of Irish policy making during the past twelve years (Gleeson:1998). For example, during President Clinton's September 1998 visit to Ireland, the slogan 'Celebrating the Success of Partnership in Ireland' was displayed prominently behind the speakers on the platform when he addressed the Business Community in Dublin. The Tánaiste,[12] Mary Harney, Minister for Enterprise, Trade and Employment, speaking on September 24th 1998 at a Conference on EU Venture and Seed Capital Measure, referred to the Irish system of social partnership as 'unique in Europe and unthinkable in America', adding that 'it has now been virtually built into the fabric of our system of government. The Taoiseach[13], Bertie Ahern, asserted in an article in the Irish Times (20th March, 2000) that social partnership has 'made us the envy of Europe'.

The partnership approach to 'managing' Ireland was adopted in 1987 in a context of 'deep despair in Irish society, the social partners…hammered out an agreed strategy to escape from the vicious circle of real stagnation, rising taxes and exploding debt' (O'Donnell and Thomas: 1998,122). Along with the elected Government of the day, there were essentially three main parties to the first agreement - Business and Industry, Trade Unions and the farming sector. These have been joined by the Community and Voluntary sector which now constitutes the 'fourth pillar' of our social partnership strategy. Five partnership agreements have been negotiated to date, all of them following a broadly similar form, involving the setting out of agreed pay increases for the period in question, commitments to social equity and tax reform as well as introducing certain policy initiatives such as 'local pay bargaining', the establishment of partnership companies to tackle long-term unemployment and the development of the Strategic Management Initiative for the modernisation of the public service. The emphasis on greater social inclusion has resulted in the development of a National Anti-Poverty Strategy (NAPS) where the intention is to poverty-proof new policy and where Education and Training are seen to play a particularly important role.

The results have been dramatic insofar as Irish GDP grew by an average of 4.9% a year compared to an OECD average of 2.4% during the period 1986-1996, while employment grew by 1.8% per year compared to an OECD average of 1.0% and an EU average of 0.3%. The debt/GDP ratio fell from 117% in 1986 to 76% in 1996 with growth accelerating especially during 1993-96 when GDP reached 7.5% per year and employment rose by 4.0% each year.

The strategy of consensus through partnership, based on extensive consultation, was also used in the preparation of both of our most recent national plans - *The National Development Plan: 1994-1999* (Ireland:1994,9), submitted to the European Community as 'a plan for employment' and *Ireland: National Development Plan: 2000-2006* (Ireland;undated). Five key strategies are proposed in the more recent plan, including 'the promotion of education and employment training policies attuned to the needs of the labour market and a special focus on those most of risk of unemployment… targeted interventions aimed at areas and groups affected by poverty and social exclusion' (ibid,8). The Plan contains a long chapter devoted to 'Employment and Human

(11) This remark should be seen in the light of the *Ages for Learning* policy proposal prepared by the Department of Education in 1984 which displayed a prominent black line between Post-Primary Education on the one hand and Vocational Preparation and Training (VPT1 and 2) on the other hand.

(12) Deputy Prime Minister.

(13) Prime Minister.

Resources Development Operational Programme' where addressing skills shortages in the economy and the promotion of lifelong learning are listed as key objectives. The only reference to the formal post-primary curriculum is to recognise the role of the Leaving Certificate Applies (LCA), Leaving Certificate Vocational Programme (LCVP) and Junior Certificate Schools Programme (JCSP) in providing 'a wider range of subject choices to young people who continue in the education system... enabling pupils to break the cycle of disadvantage and to avoid the problems of early school-leaving, to develop to their full potential and to participate fully as citizens in society, and to maximise benefit from the education system and equip them with the skill necessary for lifelong learning' (ibid, 103).

The partnership approach has been adopted enthusiastically as a strategy for consensus seeking in education, epitomised by the National Education Convention, which involved some 42 national bodies, and was held over ten days during October 1994. As discussed elsewhere by the author (Gleeson,1998), little consideration was given to VET at this important convention.

Some relevant aspects of Irish post-primary curriculum

Ireland provides an interesting combination of the Classical Humanist and Reconstructionist ideologies. The OECD (1991,57) described it as a 'derivation from Classical Humanism with an overlay of technical and a leavening of the curriculum projects.' But the technical bias of developments over the past twenty years (Lynch,1989) and the belief of successive governments in the power of education to promote national economic welfare have challenged that position.

Gleeson and Hodkinson (1999,169) advert to a similar dilemma in the UK: 'the tension within a policy which encourages prescriptive pedagogical discourse and at the same time demands a pedagogy of empowered self-learning has been a major obstacle to progress... the challenge is to generate a new 'third education settlement' which combines conceptions of social unity with competitiveness and productivity... The difference lies in the determination and transition from an instructional pedagogy to a learner oriented pedagogy which, though still circumscribed by economic rationalism .. radically redefines the relationship between learning, earning and competitiveness'. They go on to argue that 'missing in current policy discoursed in England and Wales is any broader vision of citizenship and learning.'

The dominance of economic and technical interests

Ever since the publication of *Investment in Education* (1967) Irish education has been characterised by tension[14] between the uneasy bedfellows of human capital production and equality of educational opportunity in Ireland. O'Sullivan (1989, 243) argues that 'equal opportunity, despite its frequent citation as an ideal, was never confronted as a concept demanding analysis and elaboration... This failure lead to a crude understanding of its implications for planning'. For example, it took some twenty years before there was a curriculum response to the raising of the school leaving age in 1967. O'Sullivan (1992:464) found that the Irish frame of education and social discourse was becoming increasingly 'coterminous with the theme of education and the economy' and that 'cultural identity, language, civic competence and moral development were excluded as themes'. The central focus of Irish educational discourse according to Fuller (1990:175-6) has been 'the perceived relationship between applied schooling and the needs of the economy'. This is reflected in many ways, including: the increased concern with school retention rates; the technical bias evident in the introduction of 'new subjects', the growing involvement of the Irish Business and Employers Confederation (IBEC) in education policy making, the name change from Department of Education to Department of Education and Science (DES) in 1997 and the appointment at that time of a Minister of State with special responsibility for Science and Technology.

Habermas believes that knowledge results from human activity, motivated by natural

(14) Well exemplified in the treatment of education in the various partnership programmes for government.

needs and interests which he calls knowledge-constitutive interests. These may be technical, practical or emancipatory (critical)[15]. Within the technical paradigm abstract knowledge is packaged as subjects which contain unquestionable truths. The emphasis is on instrumental knowledge in the form of scientific explanations, presented in terms of outcomes or product and with little attention to process. This corresponds closely to the Irish post-primary curriculum as characterised by the OECD (1991). Within the paradigm of the practical interest, the emphasis is on meaning making and interpretation. The school based action research work based at the Marino Institute of Education offers a rare enough example of an Irish post-primary initiative based on the practical interest. Reading McNiff and Collins (1994), it would appear that teachers involved in this initiative chose the early years of post-primary schooling rather than Leaving Certificate teaching - where the academic stakes are higher - as their area of research. Within the emancipatory interest, the dominant concern is with the distribution of power and with the emancipation of the student through the process of learning. The Conference of Religious in Ireland (CORI)[16] are the main proponents of this paradigm in Ireland[17].

Callan[18] (1995,100ff) argues that the main concern of various political forces has been 'with fitting people into a society that is allowed to remain unproblematic'. As a result, fundamental curriculum issues have been avoided 'in the pursuit of piecemeal adjustments or alignments to a host of social and cultural issues … leading to an enlargement of curriculum contents with resultant pressures on schools to respond.' This echoes the conclusion reached by the OECD (1991,76) that 'the basic goals and values of the education system have tended to be tacit rather than explicit during a period when the major transformations in the society, economy and culture have been occurring; curriculum, assessment and examination changes have been continual but piecemeal'. It also echoes the widely accepted belief (e.g. McGlynn:1995; Gleeson: 2000) that curriculum overload is one of the most widely recognised problems in Irish education.

Irish educational discourse contains many examples of the technical paradigm - 'delivery' mechanisms, used in relation to INSET and curriculum; frequent references to the 'products of our system'; the use of 'teacher *training*' rather than teacher education; the concern with 'covering the course'; other common give-away phrases include reference to 'targets', 'strategies' and 'overhaul'. Based on the preeminence of considerations of 'human capital', Lynch (1989), OECD (1991) and others have commented on the dominance of the technical emphasis in recent curriculum developments. Technical aspects of curriculum and assessment receive enormous attention at post-primary e.g. the introduction of additional levels[19] and of a wider range of grades[20]; the publication of Examiners' reports; the inclusion in the Education Act (1998) of legislation to do with grade appeals; the inclusion of assessment objectives in syllabus documents, the establishment of the Points Commission to consider the influence of third level entry on the Leaving Certificate . The Irish system then displays all the characteristics of a system where technical interests as outlined by Grundy (1987) predominate:

- ❏ the sub-culture of subjects is dominant;
- ❏ the curriculum and the learning environments are strongly controlled from the centre;
- ❏ insofar as teachers value 'theory' at all, they do so to the extent that they find it 'practical';
- ❏ there is a strong emphasis on the external measurement of the product;
- ❏ classroom management and discipline are major concerns;
- ❏ teachers implement designs handed down from above;
- ❏ Leaving Certificate grades have no meaning apart from the points which they gain for third level entry.

IVET at the post-compulsory stage – the case of the Leaving Certificate Applied

Influenced by the desire to improve retention rates at the post-compulsory edu-

([15]) Applied to curriculum by Carr and Kemmis (1986), Grundy (1987), Cornbleth (1990) and others.

([16]) CORI, along with Combat Poverty, (for example, O'Neill: 1992) are probably the best example of a counter-hegemonic trend in Ireland. McCormack explained the political role of CORI: 'we fight our corner as one of many partners out there whereas the institutional church does it on the basis of their authority.. we have to bring the light of the gospel to bear on the system, whereas the Managers have a vested interest to maintain the system.'

([17]) For example the CORI response to the Green Paper on Adult Education of 1999 is called 'Education for Transformation.'

([18]) See also O'Sullivan (1989, 243ff)

([19]) The introduction of Junior Certificate 1n 1989 resulted in the replacement of Common Level Intermediate Certificate with two levels in subjects other than Irish, English and Mathematics which now have three levels. The author believes that this development constitutes an invitation for further differentiation.

([20]) Introduced on grounds of administrative convenience in order to enable greater differentiation within the CAO points system. As a result we now have some fourteen possible grades at each level for each subject. The meaning of these grades are undefined, other than (in the case of Leaving Certificate subjects) in terms of CAO points.

cation stage, senior cycle curricula were diversified in the mid nineties. Students were offered the option of taking an initial Transition Year Programme, whose primary objective is to enrich the school experience, before proceeding to choose one of three Leaving Certificate programmes – the traditional Established Leaving Certificate, the Leaving Certificate Vocational Programme (LCVP), a variaton on the traditional Leaving Certificate and the significantly different Leaving Certificate Applied (LCA). Both the LCA and the LCVP owe their existence to European funding and the LCA is firmly based on curriculum development activities supported by the EU during the eighties.

Students taking the established Leaving Certificate select some seven subjects from a menu of more than thirty. The intention is to offer students a broad, balanced education while incorporating the demands of career specialisation. Student performance in the Leaving Certificate examination is used for selection into further and higher education.

The LCVP is a vocational intervention in the Leaving Certificate (established) to prepare students for further education and for the world of work. Students are encouraged to take greater responsibility for their own learning, become innovative and enterprising, develop effective communication, work in teams and to access and use information and communications technology. While participants take the Leaving Certificate (established) in the usual way, participants must choose two of their subjects from a vocational subject grouping (e.g. Engineering and Physics or Engineering and Accounting) and they must study a continental language and take three special modules in Enterprise Education, Preparation for Work and Work Experience. The LCVP was introduced in its present format in 1994. It was offered in approximately 480 of the 770 post-primary schools in 1999 when almost 30,000 students took the programme.

The LCA, introduced in 1995, is based on two of the products of EU funded IVET programmes, VPT and Senior Certificate programmes (developed by the Shannon Curriculum Centre's SPIRAL2 Project). It is a discrete, ring-fenced programme which provides young people with an alternative to the established Leaving Certificate. In the school year 1999-00, 209 post-primary schools (27%) and other educational/training centres are participating in the programme with approximately 7,000 participants (approximately 6.5% of the relevant cohort of upper secondary students).

Unusually in an Irish context, the programme has been designed on a modular basis, organised in half-year blocks or sessions, around a common curriculum framework. It is clearly pre-vocational in character and is aimed primarily at those students who do not wish to proceed directly to third level education and those whose aptitudes, needs and abilities are not adequately catered for by the established Leaving Certificate. The pre-vocational nature of the programme facilitates a focus on preparation for adult and working life and for continuing and further education and the student activities are practical and task-based in orientation. The courses and modules followed offer a broad, balanced curriculum leading to personal and social development and vocational orientation of participants. Perhaps the most distinguishing feature of the Leaving Certificate Applied is its emphasis on participants learning by doing, applying knowledge and skills to undertaking tasks and solving problems in an integrated way in the real world. In doing so, there are significant levels of interaction with the local community, particularly employers.

The LCA is structured around three elements – Vocational Preparation, Vocational Education and General Education. In an Irish context, this is an innovative programme in terms of teaching and learning methodologies and the ways in which student achievement is assessed. On completion of the programme, participants generally proceed to Post-Leaving Certificate VET courses or directly to the labour market.

The *Programme Statement* outlines the main features of the programme (DES/NCCA: 2000). Importance is attached to its status as a two-year 'Leaving Certificate' programme – those who complete the programme receive a certificate which has the same name as that awarded those who

Figure 1:

Curriculum Comparison

Criteria	Established Leaving Certificate	Leaving Certificate Applied
Breadth and balance	Participants take any seven subjects (31)	Common curriculum framework for all.
Curriculum integration	Discrete subjects	Student Task; Team Approach
Organisation	Subject courses of two years duration	Experiential learning
Pedagogy	Examination and text-book focus	Cumulative
Assessment	Summative	Group Award
Certification	Subject by subject	Short term goals
Participants' motivation	Deferred gratification	Intrinsic motivation
Community involvement	Minimal	Significant
Work Experience	Only in LCVP	CORE
Curriculum focus	PRODUCT	PROCESS

follow the traditional and more 'academic' route. The *Programme Statement* espouses a number of underlying principles that serve to elucidate the programme's key emphases and concerns (ibid,8). These include the personal and social development of participants, the provision of integrated learning experiences incorporating active teaching and learning strategies, out of school learning sites, and encouraging students to evaluate and reflect on the experiences gained. When questioned about the aspects of the programme they have found most meaningful, participants invariably refer to student tasks and their assessment, experience of the world of work, and the more flexible learning environments involving 'different' relationships with teachers (Ó Donnabháin:1999; Boldt: 1998).

Student achievement is rewarded on an incremental basis using three modes with credit being awarded for:

❏ module completion (31% of credits) based on key assignments for which students claim credits themselves;

❏ student tasks (35% of credits) where students have the opportunity to pursue particular learning interests through developing tasks;

❏ terminal examinations (34% of credits).

The difference between this programme and the Established Leaving Certificate, as shown in Figure 1, is revealing.

The student task

This, the most innovative aspect of the LCA, deserves special attention. It involves participating students in practical activities through which learning is applied to the development of a product, the investigation of an issue or the provision of a service. The task acts as a vehicle for curriculum integration, encouraging participants to direct their learning across different parts of the programme, drawing from the various modules they have completed at the time and pursuing their own learning interests in a loosely structured way.

Tasks take students a minimum of ten hours (usually considerably more) to complete and may be undertaken on an individual or group basis. Completion of the task incorporates the stages of planning, gathering, processing, presenting a report, evaluating. Assessment of tasks is based on:

❏ Performance Criteria – quality, evidence of enterprise and initiative, creativity, participation, practical application

❏ Criteria for Assessment of the Report – clarity of statement of purpose, effectiveness of action plan and communication, extent of integration achieved, understanding of concepts, self evaluation.

Thirty-five per cent of programme credits are awarded for tasks. Assessment of tasks also incorporates an interview with

the participant on the task. Over the course of the two-year programme, participants undertake seven tasks. These include:

- ❑ One task in the area of general education;
- ❑ One task in the area of vocational preparation;
- ❑ Two tasks in the area of vocational education;
- ❑ A contemporary issues task;
- ❑ A practical achievement task;
- ❑ A personal reflection task.

Examples of tasks completed to to date include career investigations, 'Effects of Part-time Work on Full-time Students', safety audits in the school, 'An Investigation of Joyriding', catering for events, the erection of a greenhouse, production of a variety of artefacts, operation of a range of mini companies, provision of leisure services, and provision of a hair care service.

The response of participants to tasks as a vehicle for learning and for personal development has been noteworthy (Ó Donnabháin,1999). In particular, participants refer to their increased self-confidence and interest in learning as a result of being involved in directing their own learning. Equally, they highlight the relevance of the task to their own situations in life – to the experiences of young adulthood, to the challenges of family life, to the challenge of choosing an appropriate path of further education and employment. When discussing the operation of tasks, participants are clearly conscious of how the nature of the learning experience and their relationship with the teacher has altered. Indeed, some express impatience with teachers who inhibit the freedom of participants to pursue learning interests. The value participants derive from undertaking is summarised by the following typical comments –

"It's the way this course is done.. you get to meet people.. you have to go out and make yourself do things.. it's not teachers jumping on your back to get your homework done.. you actually get a chance to investigate what you like."

"Everything we have done is very interesting dealing with life."

Table 1:

Destinations of students completing the LCA

Destination	1999 Graduates	1998 Graduates	1997 Graduates
Employment	38%	38%	39%
Post Leaving Certificate Courses (PLC)	22%	22%	32%
Apprenticeships	17%	19%	11%
CERT Courses (Catering)	4.5%	5%	1%
Teagasc Courses (Agriculture)	2%	3%	3%
FAS Courses (Training)	3.5%	2%	1%
Other non-PLC courses	2%	2%	1%
Seeking Employment	4%	4%	6%
No further information/ Unavailable for work	7%	5%	6%

Education for the world of work

Preparation for work, including work experience, is included in Vocational Preparation and Guidance which is allocated some 240 hours over two years - up to half this time may be spent on work experience. The format and nature of this experience varies from school to school and includes work placement, work simulations and career investigations operated on the basis of block release or release for one day per week. Many participants undertake Student Tasks which are based on their work experience.

From the perspective of the participants work experience has proved an essential aspect of the programme. Ó Donnabháin's interview data (1999) suggests that students testify to their enjoyment of the experience, resultant growth in self-esteem and self-confidence, increased awareness of different aspects of working life and of future job opportunities, the development of new skills and the enhancement of existing skills and to the development of student motivation and maturity. The performance of teachers and schools in the provision of this aspect of the programme varies dramatically in quality.

Table 2

Top ten destinations of LCA graduates

No.	Destination	%
1	Employment in services and sales	11.85%
2	Apprenticeship in construction industry	9.38%
3	Employment in manufacturing	8.04%
4	Business and secretarial PLC	7.73%
5	Employment in catering	4.12%
6	PLC course in Information Technology	3.91%
7	PLC course in childcare	3.91%
8	Employment in building and construction	3.7%
9	Teagasc - apprenticeship in agriculture	2.26%
10	Employment in agriculture/horticulture	1.75%

The LCA experience suggests that teachers involved in this and other aspects of the programme experience difficulty in engaging to maximum effect with learning out-of-school learning experiences which do not conform to the well-trodden paths of classroom-based subject disciplines. Nonetheless, participants are very positive about the work experience dimension of the programme. For example:

"What I have learned.. changes in work life.. how to deal with work life.. everything to do with when you are finished school and you are working and even if you are unemployed.. how to deal with life after school.. the most important thing for you in life after school is to get a job and make a go of yourself.. stick with something you want to do."

Destinations of LCA students

The results of the 1999 destination survey confirm that 88% of Leaving Certificate Applied graduates proceeded to work or further education on completion of the programme. This continues the high levels of placement in 1997 and 1998. Approximately the same percentage of graduates entered employment in each year. The number of graduates still seeking work has risen slightly.

The table below outlines the top 10 destinations of graduates in 1999 and provides an insight into the areas of employment and further education and training into which the majority of participants proceed. The 1999 survey also provides information on destinations of graduates based on their level of achievement on the programme. Of those who achieved a distinction (the highest award), 25% proceeded to employment while 68% advanced to further education and training. Of those who did not achieve a full award a higher percentage, 54% have proceeded into employment with 24% pursuing further education and training.

Overall, the results of the destination surveys would seem to indicate that the programme has proved successful in terms of its brief as an IVET programme. Participants, some of whom would in the past have left school early without qualifications are now gaining a qualification and making vocational choices regarding employment and the pursuit of further education and training successfully. However, the basic data presented here conceals findings regarding the rising number of participants who do not complete the programme which give rise to some concerns and issues which we will return to later.

Issues arising

The case of the LCA highlights many key issues in Irish education policy and practice. Five such issues - partnership, fragmentation, inflexibility, parity of esteem and the use of 'third place' situations for teaching and learning will be considered in this section.

Partnership

The education sector has been to the forefront in the development of the social partnership model of consensus seeking which is one of the most significant aspects of Irish policy making in general. But the rhetoric of partnership doesn't always transfer into the reality of implementation and the LCA raises some interesting questions about partnership in practice. While the 'ring fenced' nature of the programme allows considerable freedom for innovation on the one hand (Gleeson and Granville,1996), it increases the fear of stigmatisation on the other hand. Fears that the participants in alternative, less academic school programmes are in danger of being 'ghetto-ised', have been voiced, for example, at the National Education Convention - 'since the course will not lead to formal vocational qualifi-

cations and the course's certificands may only progress to limited courses of post-secondary education, there is a distinct danger that it will be seen as a "soft-option" track and of limited value by students'[21] (Coolahan ed:1994,76).

Recognition of the new award by employers and Further Education agencies (Gleeson and Granville:1996) puts the implementation of the partnership model to the test. While LCA students wishing to progress to further education and training may do so via a Post-Leaving Certificate course (NCVA Level 2) which opens up certain possibilities in the non-University third level sector, the primary concern of the typical LCA participant is with the acceptability of her/his qualification to employers, including the State itself. NESC (1993,211ff) suggested that 'the prospects for success of alternatives to the present general Leaving Certificate would be enhanced by linking such programmes, through structured and possibly exclusive routes, to further training and into the labour force'. This proposal for preferential treatment asks a real question of the partnership approach as applied to VET. Notwithstanding the rhetoric of the Partnership agreements in relation to the ending of social exclusion, the partners have not shown any inclination to implement the NESC suggestion to date.

The LCA throws up a second critical issue in relation to the partnership approach to national policy making. The largest teacher union at post-primary level has refused to implement the school-based assessment proposals which were an integral part of the programme as designed. This refusal is seriously curtailing the effectiveness of the programme. While the Irish Congress of Trade Unions has played a most responsible and strategically important role in the achievement of a partnership approach to government at the macro level, here we find one of its strongest constituent unions refusing to co-operate with a vital aspect of an initiative developed to address the needs of those most likely to experience the worst effects of inequality.

Fragmentation

Irish education is characterised by fragmentation at a variety of levels while relations between the separate Departments responsible for Education and Training have always been problematic (Gleeson, 2000). The LCA offers an interesting example of this fragmentation. It was developed by the National Council for Curriculum and Assessment and the Department of Education and Science then assumed responsibility for its implementation and assessment. In this context it is very difficult to ensure that the underlying principles of the programme are consistently implemented and that due credit is given them at the assessment stage.

The LCA offers an excellent example of the piecemeal nature of Irish curriculum reform in that it has been added on to the existing Leaving Certificate programme. Ironically, the best things, as ever with Irish education, are happening *at the margins* in that the LCA exemplifies significant developments such as a task oriented approach, reflection, active learning and students engagement in research.

Inflexibility

Hannan et al (1998,127), in their analysis of what they refer to as the "overeducation" of the Irish youth market, concluded that 'one of the most pronounced characteristics of the Irish educational system, despite its obvious successes, is its inflexibility…. Most of the limited flexibility present is in curricular/certification areas, rather than in instructional/course pacing, in part-time provision or in mixed education/training cumulative credit arrangements. Rigidities also in progression/access rules to further education limit access mainly to those who successfully complete the full-time system in general education, with few rewards for vocational/technical specialisation'.

Parity of esteem

The 'ring-fenced' nature of the LCA provides a further example of inflexibility. While there are many advantages to this approach, as argued by Gleeson and Granville (1996), the resulting isolation has implications for the parity of esteem of the programme and delays progression to third-level education. This is particularly unfortunate at a time when there is considerable national disquiet about the proportion of third level entrants from

([21]) Similar sentiments are expressed in the White Paper on Human Resource Development (Ireland: 1997, 48): 'A critical test of relevance for these new vocationally oriented programmes….is that they achieve the same acceptance and status as the more traditional and conventional programmes'.

working class backgrounds and when entry to Certificate and Diploma programmes is possible for those achieving five passing grades in the Established Leaving Certificate.

Ring-fencing must be seen in the historical context of Irish post-primary education. There is every likelihood that, as the declining birthrate impacts on senior cycle numbers and third level places become more available, the LCA will not remain ring-fenced indefinitely. A further and related problem is now manifesting itself - the high dropout and failure rates in third level courses entered by academically weaker students. This inflexibility is also reflected in the reluctance of the Department of Education and Science to allow LCA students to accumulate credit over a period of more than two years and to allow providing institutions to offer modules designed at school level.

Education in a 'third place'

One of the most interesting aspects of the LCA is that a programme which is part of the Leaving Certificate family and is the responsibility of the Department of Education and Science is being implemented in a range of out-of-school settings such as Youthreach. McNamara (2000), who was ideally placed to compare and contrast the school and out-of-school settings, concluded that 'there is no reason why the Leaving Certificate Applied may not be implemented in an out of school setting. The argument that you must have qualified teachers to successfully apply this programme does not hold up to scrutiny… The mainstream school was ahead of Youthreach [the out of school setting] as regards the organisation of the Leaving Certificate Applied… but the management of the Youthreach programme was more flexible. The teachers were more at the level of the students than in the mainstream. So which system worked better? For overall management of the programme, and for administrative reasons, the mainstream approach was better. However, as the aim of the Leaving Certificate Applied is to prepare young people for transition to adult and working life, I found the Youthreach approach better suited to the needs of the young people'.

Conclusion

Hord (1995) has identified four stages of curriculum reform:

- ❏ Fix the parts
- ❏ Fix the people
- ❏ Fix the schools
- ❏ Fix the system

In the light of the piecemeal nature of Irish curriculum reform, it is hardly surprising that the concentration has been on 'fixing the parts' - and more recently, on fixing the system through the introduction of unprecedented levels of legislation. The input into teacher development has been low, though the resource provision for the in-career development of LCA providers has been good. Until very recently, the role of the school factor in successful reform has been totally ignored (cf. OECD,1991: Callan,1998) and its treatment in the implementation of the LCA leaves a great deal to be desired.

The LCA represents a further example of 'fixing the parts' by tinkering around at the margins by developing an excellent pre-vocational training programme which is 'ring-fenced' so as to avoid contamination of the sacrosanct established Leaving Certificate. This approach is entirely consistent with the Irish emphasis on technical and legal approaches to change, to the neglect of cultural and pedagogical issues. Seen from this perspective, the LCA reform is about the achievement of 'contrived equilibrium' in response to the demands of the economy for increased retention rates, rather than a critical appraisal of our established education system. On the other hand, many regard the LCA as a valuable development whose membership of the extended Leaving Certificate family makes it hugely significant. It is because of this official recognition that it was chosen for presentation at this Agora ahead of some of the more radical alternatives which exist in Ireland. Now that the programme has achieved recognition, it has the potential, Trojan horse style, to revolutionise Irish post-primary curriculum policy and practice from the inside. But this observer is not holding his breath!

References

Boldt, Scott (1998) *Unlocking Potential – A Study and Appraisal of the Leaving Certificate Applied* Dublin:Marino Institute of Education

Callan, J (1995), 'Equality of Learning in Schooling: A Challenge for Curriculum Implementation'. In Coolahan, J Ed. *Issues and Strategies in the Implementation of Educational Policy* Maynooth: Education Department, pages 92-117.

Callan, J (1998) *Principal-Staff Relationships: A critical element in developing school curricula and teacher culture*, unpublished paper read as ESHA Conference.

Carr, W and S Kemmis (1986) *Becoming Critical, Education, Knowledge and Action Research* London:Falmer.

Clancy, P. (1995) *Access to College: Patterns of Continuity and Change* HEA:Dublin.

Clancy, P and J Wall (2000) *Social Background of Higher Education Entrants* HEA:Dublin.

Commission of the European Communities (1989), *Europe in Figures*, Brussels.

Coolahan, John ed , (1994), *Report on the National Education Convention,* Dublin:National Education Convention Secretariat.

CORI (1998) *Inequality in Education – The Role of Assessment and Certification* Dublin: Education Commission, Conference of Religious of Ireland

Cornbleth, C (1990) *Curriculum in Context* London:Falmer.

Crooks, Tony (1990), 'The Dublin Inner City Education Project', in McNamara, G, K. Williams and D. Herron ed., *Achievement and Aspiration: Curricular Initiatives in Irish Post-Primary Education in the 1980's,* Dublin:Drumcondra Teachers' Centre, pages 87-100.

Department of Education (1984), *The Ages of Learning,* Stationery Office, Dublin.

European Commission (1994), *Growth, Competitiveness, Employment,* White Paper, Brussels.

DES/NCCA (2000) *Leaving Certificate Applied, Programme Statement and Oultine of Student Tasks* Dublin:Stationery Office.

European Community (1988), *Transition Education for the '90'- The Experience of the European Community Action Programme,* IFAPLAN, Brussels.

Fuller, Louise, (1990), *An Ideological Critique of the Irish Post-Primary School Curriculum,* unpublished M..Ed thesis, NUI Maynooth University.

Gleeson, D and P Hodkinson (1999), 'Ideology and curriculum policy: GNVQ and mass post-compulsory education in England and Wales' in Flude, M and Siemenski, S ed. *Education, Training and the Future of Work II* London:Routledge, pages 158-176.

Gleeson, Jim (2000) *Post-primary curriculum policy and practice in the Republic of Ireland: fragmentation, implementation and partnership* Unpublished PhD thesis, University of East Anglia.

Gleeson, Jim (1990), 'SPIRAL 2, the Shannon Initiatives' in McNamara, G, K. Williams and D. Herron ed., *Achievement and Aspiration: Curricular Initiatives in Irish Post-Primary Education in the 1980's,* Drumcondra Teachers' Centre, Dublin, pages 63-86.

Gleeson, Jim (1996), 'Emerald Green paper tiger: generic skills in education policy', unpublished paper read at the Educational Studies of Ireland Conference, Galway.

Gleeson, Jim (1998), 'A consensus approach to policy making: the case of the Republic of Ireland' in Finlay, Ian, S. Niven and S. Young eds., *Changing Vocational Education and Training*, Routledge, London, pages 41-69.

Gleeson, Jim and Gary Granville, (1996), Curriculum Reform, Educational Planning and National Policy, The Case of the Leaving Certificate Applied, *Irish Education Studies*, ESAI, pages 113-132..

Gleeson, Jim and John McCarthy (1996), 'The recognition and certification of Transnational Training and Work Experience Placements under PETRA - an Irish Perspective', *International Journal of Vocational Education and Training,* Volume 4, Number 2, pages 60-80.

Granville, Gary (1982), 'The work of the Early School Leavers Project', *Compass*, Volume 11, No. 1.

Grundy, S (1987) *Curriculum: Product or Praxis* London:Falmer.

Hannan, D et al, (1995), 'Early Leavers from Education and Training in Ireland, the Netherlands and the United Kingdom', *European Journal of Education,* Vol 30, No. 3, pp325-346.

Hannan D et al (1998) *Trading Qualifications for Jobs* Dublin:ESRI.

Hantrais, Linda (1995), *Social Policy in the European Union,* Macmillan.

Hord, S (1995) From Policy to Classroom Mandates: Beyond the Mandates. In Carter, D and O'Neill, M eds. *International Perspectives on Educational Reform and Policy Implementation.* London: Falmer, pages 86-100.

Ireland (1987), *Programme for National Recovery,* Dublin: Stationery Office.

Ireland (1991), *Programme for Social and Economic Progress,* Dublin:Stationery Office,

Ireland (1993), *Programme for Competitiveness and Work,* Dublin: Stationery Office.

Ireland (1994), *Programme for National Development (1994-99),* Stationery Office: Dublin.

Ireland (1995a), *Charting our Education Future, White Paper on Education,* Dublin: Stationery Office.

Ireland (1995b), *Making Knowledge Work for Us, Report of the Science, Technology and Innovation Council,* Dublin:Stationery Office.

Ireland (1996b), *Partnership 2000 for Inclusion, Employment and Competitiveness,* Dublin:Stationery Office.

Ireland (1996a), *Science, Technology and Innovation, The White Paper,* Dublin: Stationery Office.

Ireland (1997), *White Paper, Human Resource Development,* Dublin:Department of Enterprise and Employment and Employment, Stationery Office.

Leonard, D (1990), 'The Vocational Preparation and Training Programme' in McNamara, G, K. Williams and D. Herron ed., (1990) *Achievement and Aspiration: Curricular Initiatives in Irish Post-Primary Education in the 1980's,* Dublin: Drumcondra Teachers' Centre, pages 33-46.

Lewis, Mary and Thomas Kellaghan (1987), 'Vocationalism in Irish Second-Level Education', *The Irish Journal of Education,* Volume xxi, pp5-35.

Lynch, Kathleen, (1989), *The Hidden Curriculum: Reproduction in Education, An Appraisal,* London: Falmer.

McGlynn, M (1995) 'A principal's perspective on implementation' in Coolahan, J ed. *Issues and Strategies in the Implementation of Educational Policy,* Maynooth: Education Department, pages 65-75.

McNamara, Ger (2000) *The LCA in two settings* Unpublished research report, University of Limerick.

McNiff, J and U Collins (1994) *A New Approach to In-Career Development for Teachers in Ireland* Bournemouth:Hyde.

NCCA (1998) *Review of the Leaving Certificate Applied – Report on Programme Structure* Dublin: NCCA

NCCA/DES (2000) *Leaving Certificate Applied – Programme Statement and Outline of Student Tasks* Dublin: DES

NESC (1993), *Education and Training Policies for Economic and Social Development,* Dublin.

NESC (1996), *Strategy into the 21st Century, Conclusions and Recommendations,* Dublin.

O'Connor, Torlach (1998), 'The Impact of the European Social Fund on the Development of Initial Vocational Education and Training in Ireland' in Trant A, Ó Donnabháin D et al, *The Future of the Curriculum* Dublin:CDVEC, pages 57-76.

Ó Donnabháin, D (1999) *Reconciling Liberal and Vocational Education* Dublin: Curriculum Development Unit

O'Donnell, Rory and Damian Thomas (1998), 'Partnership and Policy-Making', in Healy, Sean and Brigid Reynolds ed. *Social Policy in Ireland, Principles, Practice and Problems*, Dublin: Oak Tree Press, pages 117-146.

O'Sullivan, Denis (1992) 'Cultural strangers and Educational Change: The OECD Report Investment in Education and Irish Education Policy' *Journal of Education Policy* Volume 7, No. 5, 445-469.

O'Sullivan, Denis (1989), 'The Ideational Base of Irish Educational Policy', in Mulcahy, D and D O'Sullivan, *Irish Education Policy,* Dublin:IPA, pages 219-269.

OECD (1984), *Improving Youth Employment Opportunities: Policies for Ireland and Portugal,* Paris.

OECD (1991), *Review of National Policies: Ireland,* Paris.

OECD (1995), *Economic Surveys - Ireland,* Paris.

Office for Official Publications of the European Communities (1995), *The Information Society,* Brussels.

Paris, David C., (1995), *Ideology and Educational Reform*, Boulder, Colorado: Westview,

Stokes, Dermot and Elizabeth Watters, (1997), *Ireland: Vocational Education and Training: A Guide,* Leonardo Da Vinci, Dublin: Léargas.

Europe International

Information, comparative studies

Assessing the supply and demand for scientists and technologists in Europe / R Pearson [et al.]
Brighton: Institute for Employment Studies, 2001, 208 p.
(Report, 377)
ISBN 1 85184 306 X
Grantham Book Services Ltd,
Isaac Newton Way,
Alma Park Industrial Estate,
UK-Grantham NG31 9SD,
Tel. (44-1476) 541080,
Fax (44-1476) 541061

This report, which is based on a study carried out for the Research Directorate-General of the European Commission, reviews the available evidence on the supply and demand for professional scientists and technologists (S&Ts) in Europe. It was recognised at the outset that it is an inherently difficult task, given the rapid rate of change, the diversity across occupations, countries, and their labour markets, and the inadequacy of existing data sources. The picture is also often confused by some widely publicised ad hoc studies, e.g. on the demand for IT skills, which are based on poor research and may have been undertaken for publicity or 'lobbying' purposes to get more government resources spent on training. A subsidiary objective therefore was to explore what could be achieved, and where data sources might be improved to add value to policy-making in this challenging area.

Managing quality in higher education: an international perspective on institutional assessment and change / John Brennan and Tarla Shah.
London: Open University Press,
2000, 166 p.
ISBN 0-335-20673-5

New arrangements for the assessment and management of quality have been introduced recently into higher education systems in many parts of the world. These arrangements arouse enthusiasm and cynicism in roughly equal measure. The enthusiasts proclaim an array of benefits to higher education institutions and the people who work and study in them. The cynics see, at best, futility and, at worst, serious damage to the academic enterprise. So far, neither party has had much evidence on which to base their views. But this book makes an important start in providing that evidence. It reports a series of case studies on managing and assessing quality from twenty-nine institutions and seven national quality agencies, gathered from seventeen countries; and it also draws upon other relevant research. It does not paint a black and white picture but suggests that managing quality can bring either benefits or threats depending very much on how it is undertaken, in what context and for what purpose. The authors argue that quality management is as much about power, values and change as it is about quality, and that is why it is frequently a source of controversy and conflict. That is why it matters. This book is based on a project supported by the Programme on Institutional Management in Higher Education (IMHE) of the Organisation of Economic Cooperation and Development, headed by John Brennan and supported by the European Commission, and is co-published with the OECD. It is essential reading for university leaders and managers, senior academics and policy-makers, and scholars and researchers in the field of higher education policy and practice.

Zeitgeschichte Europäischer Bildung 1970-2000: Band 2: Entwicklungsprofile / herausgegeben von Klaus Schleicher, und Peter J. Weber.
[History of European Education 1970-2000: Vol. 2: Development profiles / Eds. Klaus Schleicher, Peter J. Weber]
Nationale Entwicklungsprofile.
Münster: Waxmann Verlag, 2000, 399 p.
(Zeitgeschichte europäischer Bildung 1970-2000, 2)
(Umwelt, Bildung, Forschung, 5)
ISBN 3-89325-843-4

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

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

The authors describe the educational reforms being carried out in individual countries with due consideration of national attitudes and European challenges. The publication shows the extent to which national education systems develop their own dynamics and how some reforms tend to converge because of European integration and competition in education. It is shown why the delayed development of democracy and modernisation in Spain and Portugal led to more dynamic trends in education, how the centralised education systems in France and Italy are becoming more regionally differentiated because of economic and social pressures, and how Germany and France are trying to promote national networks. The volume closes with a review of the educational situation in Scandinavia after accession to the EU, and the necessity for Central and Eastern European applicants to the EU to orient their education systems to both national and European aspects.

European Union: policies, programmes, participants

A European Perspective in the fight against racism and xenophobia.
International Conference YOUTH for Tolerance and Democracy. Berlin. 2001.
Brussels: European Commission - Directorate General for Education and Culture, 2002, 12 p.
European Commission - Education and Culture Directorate-General,
Rue de la Loi 200/Wetstraat 200,
B-1049 Bruxelles/Brussel,
Tel. (32-2) 2991111,
URL: http://www.europa.eu.int/comm/dgs/education_culture/index_en.htm

The idea for this conference originates from a German initiative at the EU Youth Council in November 2000 that gained further support through a conversation between Dr Christine Bergmann, the German Federal Minister of Family Affairs, Senior Citizens, Women and Youth, and the EU Commissioner for Education and Culture, Viviane Reding. The main concern was to incorporate the ideas and activities of young people in the fight against racism and xenophobia in Europe. Accordingly, the aim of the conference was to give young people from European countries the opportunity to exchange their experiences in the fight against racism and xenophobia whilst at the same time giving them a platform for discussions with politicians and experts. The intention was to provide recommendations for a European policy against racism and xenophobia which would be passed directly on to politicians to influence the current European discussion.
http://libserver.cedefop.eu.int/vetelib/eu/pub/commission/dgeac/2002_0002_en.pdf

Analysing and anticipating change to support socio-economic progress: four year programme 2001-2004.
European Foundation for the Improvement of Living and Working Conditions - EFILWC
European Industrial Relations Observatory - EIRO
Luxembourg: EUR-OP, 2001, 120 p.
ISBN 92-897-0058-0
Cat.No. TI-36-01-370-EN-C
EUR-OP,
2 rue Mercier,
L-2985 Luxembourg,
or from its national sales offices,
Tel. (352-29) 2942118,
Fax (352-29) 2942709,
E-mail: info.info@opoce.cec.be,
URL: http://www.eur-op.eu.int/

This annual report contains the four-year rolling programme. The Foundation's seventh four-year programme aims both to provide continuity, building on the expertise established over the past 25 years, and innovation, exploring new and emerging issues and addressing societal changes and the continuing challenge to improve living and working conditions.
http://libserver.cedefop.eu.int/vetelib/eu/pub/foundation/2001_0001_en.pdf

Curriculum development guidelines: new ICT curricula for the 21st century: designing tomorrow's education.
European Centre for the Development of Vocational Training - CEDEFOP Luxembourg: EUR-OP, 2001, VI, 47 p.
(Career Space - Future skills for tomorrow's world)
ISBN 92-896-0074-8 - EN
Cat.No. TI-39-01-966-EN-C
EUR-OP,

2 rue Mercier,
L-2985 Luxembourg,
or from its national sales offices,
Tel. (352-29) 2942118,
Fax (352-29) 2942709,
E-mail: info.info@opoce.cec.be,
URL: http://www.eur-op.eu.int/

This document sets out the guidelines developed by the working group and endorsed by the ICT companies involved in the project. It outlines the development of the ICT industry, and the history of ICT curricula in universities. The need for significant change is described, given the rapid development of technology in this fast-moving area and the changing nature of jobs in the industry. Recommendations are given for the content areas of new ICT curricula covering the variety of skills required. The purpose of the curriculum development guidelines is to assist the development of courses, which will cover the whole range of needs in particular fields.

Definition of indicators for a European quality in VET strategy / Erwin Seyfried.
European forum on quality of vocational training. Brussels. 2001
Thessaloniki: CEDEFOP, 2001, 8 p.
CEDEFOP,
P.O. Box 22427 - Finikas
GR-55102 Thessaloniki,
Tel. (30-31) 490111,
Fax (30-31) 490102,
E-mail: info@cedefop.eu.int,
URL:http://www.cedefop.eu.int/

The definition of common quality indicators in the field of initial and continuing vocational training is one of the main areas of work for cooperation between the Commission and the Member States. The FORUM could act as a catalyst in this cooperation by stimulating and supporting the development of suitable indicators to be used at European level as well as in the Member States.
http://libserver.cedefop.eu.int/vetelib/eu/pub/cedefop/internal/2001_0010_en.doc

E-quality in vocational training: a handbook / Helga Foster, Katrin Gutschow. Bundesinstitut für Berufsbildung - BIBB
Berlin: BIBB, 1999, 80 p.
ISBN 3-88555-664-2

The QUASAR project - a transnational project in the framework of the vocational training programme Leonardo da Vinci, coordinated by BIBB - started out with the aim of promoting equal opportunities for women and men in vocational training via the development of quality standards. The results are focused on the integration of quality criteria into a process-oriented system of quality management. To assure a broad, multi-national approach for the development of quality criteria, each partner country referred to regional networks - consisting of training organisations, regional development agencies, counselling and research institutions and enterprises. They helped to develop and evaluate on a national level the project's results by testing and revising the instruments. The project's results are published in a handbook 'E-quality in Vocational Training'. This handbook contains: criteria to investigate training institutions and courses aimed at potential customers and participants; quality criteria for continuing vocational training for women which describe the conditions that have to be met by training institutions in order to deliver vocational training that meets the needs of the participants and the labour market; a checklist for trainers that shows the trainers' role in quality management; a questionnaire for self-evaluation, to be used by training institutions to check their current position before taking action; suggestions for the implementation of a quality management system following the QUASAR criteria.

Gender, employment and working time preferences in Europe / Colette Fagan [et al.].
Luxembourg: EUR-OP, 2001, 117 p.
ISBN 92-897-0112-9
Cat.No. TJ-39-01-667-EN-C
EUR-OP,
2 rue Mercier,
L-2985 Luxembourg,
or from its national sales offices,
Tel. (352-29) 2942118,
Fax (352-29) 2942709,
E-mail: info.info@opoce.cec.be,
URL: http://www.eur-op.eu.int/

This report looks at the role played by gender in determining labour market par-

ticipation. It shows how women's and men's employment preferences are related to the kinds of jobs they do, as well as to their domestic circumstances, and compares the wishes of those who are currently employed with those of job seekers.

Greater transparency and quality in vocational training / Johannes Sauer.
European forum on quality of vocational training. Brussels. 2001
Thessaloniki: CEDEFOP, 2001, 6 p.
CEDEFOP,
P.O. Box 22427 - Finikas
GR-55102 Thessaloniki,
Tel. (30-31) 490111,
Fax (30-31) 490102,
E-mail: info@cedefop.eu.int,
URL: http://www.cedefop.eu.int/

The aim of the current discussion on improved quality in further education must be to ensure the attainment of maximum quality and consumer protection in vocational training through regulation, by setting up a quality assurance system. Therefore, first of all, the framework into which this objective is embedded requires definition.
http://libserver.cedefop.eu.int/vetelib/eu/pub/cedefop/internal/2001_0006_en.doc

High level task force on skills and mobility: final report.
European Commission, Directorate General for Employment and Social Affairs
Brussels: European Commission- Employment and Social Affairs, 2001, 28 p.
European Commission - Employment and Social Affairs Directorate-General,
Rue de la Loi 200/Wetstraat 200,
B-1049 Bruxelles/Brussel,
Tel. (32-2) 2991111, URL:
http://www.europa.eu.int/comm/dgs/employment_social_affairs

The Task Force on Skills and Mobility based its work on three main principles: firstly, the freedom of movement within the European Single Market is a fundamental objective of the European Union, and barriers to it must be eliminated. Secondly, the development of a knowledge-based society is a fundamental determinant of competitiveness and growth in a global economy, and therefore policies to foster skills endowment in Europe must be strengthened. Thirdly, the achievement of both the freedom of movement and the construction of a knowledge based society are key conditions for achieving the objective of full employment in Europe, set at the Lisbon European Council in the spring of 2000.

ICT@Europe.edu: Information and Communication Technology in European Education Systems.
Information Network on Education in Europe - EURYDICE; European Commission, Directorate General for Education and Culture;
Luxembourg: EUR-OP, 2001, 186 p.

The Eurydice publication reviews progress in incorporating ICT into national education systems. A survey carried out in 30 countries covers the incorporation of ICT into education systems at all levels, including initial and in-service teacher training. It sets out to answer questions about aims and strategies underlying policies to introduce ICT into education, about the specific measures taken, about how responsibility for ICT in education is shared among the various administrative levels, and so on.
www.eurydice.org/Documents/Survey4/en/ICTcover1.pdf

Open and distance learning and the professionalisation of trainers / Mara Brugia [et al.].
Luxembourg: EUR-OP, 2001, VI, 70 p.
(Cedefop Reference, 21)
(TTnet Dossier, 4)
ISBN 92-896-0055-1-EN
ISSN 1608-7089-EN
Cat.No. TI-38-01-407-EN-C
EUR-OP,
2 rue Mercier,
L-2985 Luxembourg,
or from its national sales offices,
Tel. (352-29) 2942118,
Fax (352-29) 2942709,
E-mail: info.info@opoce.cec.be,
URL: http://www.eur-op.eu.int/

The TTnet Dossiers have the aim of making the results obtained from the work of the TTnet network available to all persons and institutions working in the field of trainer training – policy-makers, re-

search and documentation centres, professional trainer organisations – and thus making a contribution to the Community debate on the training of trainers. TTnet Dossier No 4 presents the results of a thematic workshop on 'Open and distance learning and the professionalisation of trainers'. It consists of a series of thematic articles examining the issue from different angles: the typologies of training using ICT and their impact on trainers' competences; the specificities of training design and pedagogical methodology; key questions for trainers in the Community context. The outcomes of these discussions will be taken as the point of departure for a more detailed examination of this subject which the TTnet network plans to carry out in the course of 2001-2002 as part of a cooperative venture with the European Commission within the framework of the eLearning initiative.

Quality in social public services / Jane Pillinger.
Luxembourg: EUR-OP, 2001, 138 p.
ISBN 92-897-0066-1-EN
Cat.No TI-36-01-378-EN-C
EUR-OP,
2 rue Mercier,
L-2985 Luxembourg,
or from its national sales offices,
Tel. (352-29) 2942118,
Fax (352-29) 2942709,
E-mail: info.info@opoce.cec.be,
URL: bttp://www.eur-op.eu.int/

This report from the European Foundation for the Improvement of Living and Working Conditions documents and assesses key developments in the social public services EU-wide. It looks at service improvements aimed at client groups who typically have multiple needs: adults with mental illnesses; adults with learning disabilities; dependent older people; long term unemployed young people. The report examines the impact of initiatives to improve the quality of both the service to clients and the working conditions of the staff involved. It also presents strategies for the future.

Quality measures in VET systems' governance / Finn Christensen.
European forum on quality of vocational training. Brussels. 2001
Thessaloniki: CEDEFOP, 2001, 10 p.
CEDEFOP,
P.O. Box 22427 - Finikas
GR-55102 Thessaloniki,
Tel. (30-31) 490111,
Fax (30-31) 490102,
E-mail: info@cedefop.eu.int,
URL: http://www.cedefop.eu.int/

The present note aims at introducing the issue of quality in the governance of the education and training systems, giving the FORUM an opportunity to respond both to the general mapping of the field as presented below and to the more specific problems highlighted in each of those items: governance as regulation and managing; the financial aspect when implementing quality assessment procedures; control, inspection, internal and external measures; certification, transparency, flexibility; roles of the various actors; present motives for quality and quality-improving measures; analysing a VET system.
http://libserver.cedefop.eu.int/vetelib/eu/pub/cedefop/internal/2001_0009_en.doc

Quality tools for VET systems & organisations / Wouter Van den Berghe.
European forum on quality of vocational training. Brussels. 2001
Thessaloniki: CEDEFOP, 2001, 7 p.
CEDEFOP,
P.O. Box 22427 - Finikas
GR-55102 Thessaloniki,
Tel. (30-31) 490111,
Fax (30-31) 490102,
E-mail: info@cedefop.eu.int,
URL: bttp://www.cedefop.eu.int/

The purpose of this paper is to stimulate the debate in the FORUM about tools for quality control and to guide, in particular, the work that should be undertaken over the next two years. The paper pays particular attention to the clarification of the issues involved. It includes proposals for possible segmentation and classification of quality tools. This will allow the FORUM to be more precise about the type of tools requiring the greatest attention.
http://libserver.cedefop.eu.int/vetelib/eu/pub/cedefop/internal/2001_0012_en.doc

Third European survey on working conditions 2000 / Pascal Paoli and Damien Merllié.

Paoli, Pascal; Merllié, Damien
Luxembourg: EUR-OP, 2001, 72 p.
ISBN 92-897-0130-7
Cat.No. TJ-39-01-764-EN-C
EUR-OP,
2 rue Mercier,
L-2985 Luxembourg,
or from its national sales offices,
Tel. (352-29) 2942118,
Fax (352-29) 2942709,
E-mail: info.info@opoce.cec.be,
URL: http://www.eur-op.eu.int/

This report from the European Foundation for the Improvement of Living and Working Conditions presents the main findings of the Third European survey on working conditions. The survey was carried out simultaneously in each of the 15 Member States of the European Union in March 2000. These surveys aim to provide an overview of the state of working conditions in the European Union, and indicate the nature and content of changes affecting the workforce and the quality of work.
http://libserver.cedefop.eu.int/vetelib/eu/pub/foundation/2001_0008_en.pdf

Types of examination and certifications arrangements / Pascale de Rozario.

European forum on quality of vocational training. Brussels. 2001
Thessaloniki: CEDEFOP, 2001, 23 p.
CEDEFOP,
P.O. Box 22427 - Finikas
GR-55102 Thessaloniki,
Tel. (30-31) 490111,
Fax (30-31) 490102,
E-mail: info@cedefop.eu.int,
URL: http://www.cedefop.eu.int/

The quality of certificates, diplomas and examination procedures in VET has been described as one of the factors for improving VET quality control of learning processes and outcomes in terms of better employability, professional mobility from one sector to another and better access to learning systems (in a more global European policy for lifelong learning). As far as certificates/diplomas are concerned, this Forum also takes into account the working results of the EU Forum on 'Transparency of qualifications'.
http://libserver.cedefop.eu.int/vetelib/eu/pub/cedefop/internal/2001_0020_en.doc

From the Member States

A Die Zukunft der österreichischen Berufs- und Qualifiktionslandschaft bis 2005 / Gudrun Biffl.
[Future of Austrian professions and qualifications until 2005.]
Author Biffl, Gudrun
Vienna: AMS Österreich, 2001, 96 p.
AMS Report, 20 (2001)
AMS Österreich,
Treustraße 35-43,
PF 64,
A-1203 Wien,
Tel. (43-1) 33178-0,
Fax (43-1) 33178-150,
E-mail: ams.oesterreich@001.ams.or.at,
URL: http://www.ams.or.at/

Report on the future of Austrian professions and qualifications. Comparative analysis between Austria and the United States.
Abstract: In the second half of 2000 the Austrian Institute for Economic Research (WIFO) carried out an analysis and forecast of the occupations and qualifications in Austria up to the year 2005 at the request of the Federal Office of AMS, Austria. The different forms of gainful employment, i.e. both remunerated employment and self-employment, were presented at different levels of aggregation broken down in terms of individual sectors, branches, occupational groups and levels of school education.

DK Curious minds: Nordic adult education compared / edited by Albert Tuijnman and Zenia Hellström.
Nordic Council of Ministers
Copenhagen: Nordic Council of Ministers, 2001, 196 p.
NORD, 9 (2001)
ISBN 92-893-0613-0
ISSN 0903-7004

In December 1999, the Nordic Committee of Senior Officials for Education and Research decided to commission an in-depth Nordic study of adult participation in education and training based on the OECD's literacy studies IALS and SIALS. The project involved an academic project group and a reference group appointed by the Nordic Council of Ministers. The mandate for the NOMAD project - Nordic Model of Adult Education - was to conduct a comparative Nordic study of adult participation in education and training, including higher education. The study analysed empirical data from the OECD studies to examine the quality of, justification for and efficiency of Nordic adult education and training. The scope was limited to comparing selected development characteristics for adult participation in education and training in individual Nordic countries, between the various Nordic countries and between the Nordic countries and selected OECD countries. NOMAD is the first Nordic project ever to collate comparable data of this nature and makes it possible to consider whether such a thing as a 'Nordic model' exists in adult education and training. The Nordic countries are of great interest in the context of the OECD studies. Both the subject matter and the methodology represent new departures in Nordic research and will hopefully form the basis for subsequent studies of a similar nature.

D Berufsbildungsbericht: 2001 [Vocational training report: 2001.]
Bundesministerium für Bildung, Wissenschaft, Forschung und Technologie - BMBF
Bonn: BMBF, 2001, 714 p.
BMBF,
Heinemannstr. 2,
D-53175 Bonn-Bad Godesberg,
Tel. (49-228) 57-0,
Fax (49-228) 57-3601,
E-mail: information@bmbf.bund400.de,
URL: http://www.bmbf.de
Note: Also available on CD-ROM

The 2001 Vocational Training Report contains data and information on vocational training, the training market and vocational training policy in the Federal Republic of Germany. It addresses the 2000 training market, initiatives to increase training provision and the government's emergency

plan to reduce youth unemployment. The report also considers issues relating to the modernisation of training.
http://libserver.cedefop.eu.int/vetelib/nat/deu/gov/2001_0003_de.pdf

Qualifizieren für Europa: zur Vermittlung von Fremdsprachenkompetenz in der kaufmännischen Berufsausbildung / Uta Langner.
[Training for Europe: providing foreign language competence in commercial training.]
Cologne: Botermann und Botermann Verlag, 2000, 323 p.
ISBN 3-88105-200-3

The progressive 'Europeanisation' of the economy is leading to increasing demands for foreign language instruction in initial and continuing vocational training. The author's primary goal is thus the formulation of recommendations for foreign language curricula in the training of commercial personnel. On the basis of a qualitative survey of teachers and trainers, the author identifies didactic problems affecting curricular design. These problems include the integration of grammar, how to convey intercultural competence and aspects relating to the specialised language of business. These problems are analysed with the help of interdisciplinary findings, and curriculum design recommendations for commercial occupations are then derived from these analyses.

Zeitgeschichte Europäischer Bildung 1970-2000: Band 1: europäische Bildungsdynamik und Trends / herausgegeben von Klaus Schleicher, und Peter J. Weber.
[History of European Education 1970-2000: Vol. 1: European training dynamics and trends.]
Europäische Bildungsdynamik und Trends.
Schleicher, Klaus; Weber, Peter J.
Münster: Waxmann Verlag, 2000, 515 p.
(Zeitgeschichte europäischer Bildung 1970-2000, 1)
(Umwelt, Bildung, Forschung, 4)
ISBN 3-89325-835-3; ISSN 1434-3762;

The construction of Europe and education in Europe are closely inter-related. Despite some overarching, transnational aspects, the historical, cultural and national concepts of Europe and education vary across the continent. This collection of European education movements and national development profiles presents a systematic and logical overview of European trends. The historical national comparisons show how different experiences and contexts in Europe can be and yet how at the same time similar reform tendencies can emerge. The authors address the goals and potential of education policy, education research prospects and findings, the uniformity and diversity of the organisation of education, and the basic principles and public acceptance of policy and change of values.

Zeitgeschichte Europäischer Bildung 1970-2000: Band 2: nationale Entwicklungsprofile / herausgegeben von Klaus Schleicher, und Peter J. Weber.
[History of European Education 1970-2000: Vol. 2: National development profiles]
Nationale Entwicklungsprofile.
Schleicher, Klaus
Münster: Waxmann Verlag, 2000, 399 p.
(Zeitgeschichte europäischer Bildung 1970-2000, 2)
(Umwelt, Bildung, Forschung, 5)
ISBN 3-89325-843-4

The authors describe the educational reforms being carried out in individual countries with due consideration of national attitudes and European challenges. The publication shows the extent to which national education systems develop their own dynamics and how some reforms tend to converge because of European integration and competition in education. It is shown why the delayed development of democracy and modernisation in Spain and Portugal led to more dynamic trends in education, how the centralised education systems in France and Italy are becoming more regionally differentiated because of economic and social pressures, and how Germany and France are trying to promote national networks. The volume closes with a review of the education system in Scandinavia after membership in the EU, and the necessity for Central and Eastern European applicants to the EU to orient their education systems to both national and European aspects.

F 78 actions pour la voie des métiers professionnelle / Ministère de l'éducation nationale, Ministère délégué à l'Enseignement professionnel.
[78 vocational pathway schemes]
Paris: Ministère de l'éducation nationale, 2002, various pagination
Ministère de l'Education nationale, de la Recherche et de la Technologie, 110, rue de Grenelle, F-75357 Paris cedex 07, URL: http://www.education.gouv.fr

This progress report is the fourth published by the Ministry of Vocational Education. It has the aim of establishing to what extent planned tasks have been achieved. Its purpose is to increase the motivation of all those involved in the work of the vocational pathway. It enables them to take stock of the results of their efforts to bring about a smooth and far-reaching renovation of this type of training. The 78 schemes selected are representative of the principles followed in this work. They are the achievements of the persons in the Ministry of Education who put them into practice every day, but all are invited to make an effort to enlarge their scope or enhance their purpose. This document is intended as a reference. In this respect it makes a contribution to the ongoing discussions which are necessary if the school is to be fully owned by the citizens. Because the school does not belong to itself, it belongs to the nation which fixes the objectives and entrusts the school with the concrete preparation of its future.
http://libserver.cedefop.eu.int/vetelib/nat/fra/gov/2002_0001.htm

I Il sistema di formazione professionale in Italia / Giorgio Allulli [et al.].
[Vocational education and training in Italy / Giorgio Allulli, et al.].
2nd ed.
Luxembourg: EUR-OP, 2001, 158 p. (Cedefop Monograph, 7010)
ISBN 92-828-7369-2-EN
Cat.No. HX-22-99-822-EN-C
EUR-OP, 2 rue Mercier, L-2985 Luxembourg, or from its national sales offices, Tel. (352-29) 2942118, Fax (352-29) 2942709, E-mail: info.info@opoce.cec.be, URL: http://www.eur-op.eu.int/

The volumes in this series set out to describe initial and continuing vocational education and training (VET) in Italy. As far as initial VET is concerned this means including training provision which. in some cases, is under the responsibility of the Ministry of Education and in others under the Ministry of Employment or Social Affairs. As far as continuing VET is concerned, it requires coverage of provision for both the employed and unemployed, usually by a wide range of governmental bodies and ministries, by private and social partner organisations. The structure of the report: background information, brief description of the education system and its development, the vocational education and training system, regulatory and financial framework, qualitative aspects, trends and perspectives.
http://www2.trainingvillage.gr/etv/publication/download/monograf/7010en/7010en.html

ICE Advantage for the future 2001-2003: project plan of the Ministry of Education, Science and Culture for e-learning.
Reykjavik: Menntamalaraduneytid, 200, unpaged

This project plan from the Ministry of Education, Science and Culture has the aim of ensuring that information technology will be utilised for the benefit of education. The concept of distributed education is introduced here. The Internet will play a key role in enabling students to engage in studies in many schools at once and shape the curriculum to their own needs. The project is divided in four parts: learning and teaching, educational materials, equipment and educational gateways. The fourth part involves: educational gateway, curriculum guide gateway, new library system for all school libraries, metadata cataloguing of education-related content and new information system for upper secondary schools. Educational gateway is a website on the Internet that will be based on a database with catalogued educational content and searches defined according to users' needs. There, teachers and students can find content related to curricular goals.

IRL Learning for life: White Paper on Adult Education, an analysis / Conference of Religious of Ireland Education Commission

Conference of Religious of Ireland - CORI, Education Commission
Dublin: CORI, 2001, 47 p.
ISBN 1-872335-55-1
CORI,
Milltown Park,
IRL-Dublin 6,
Tel. (353-1) 2698220,
Fax (353-1) 2698887,
E-mail: education@cori.ie

The views of CORI on adult education which have been previously outlined in their publication 'Social transformation and lifelong learning' form the basis for this analysis of the White Paper. The main part of the publication, in table form, deals with the main issues in the White Paper set against the CORI recommendations. The areas examined include literacy, second-chance education, community education, work-based education and training, outreach and guidance, accreditation and certification, structures, funding and implementation. In concluding remarks CORI welcomes the publication of the White Paper as providing an excellent framework for the development of adult and community education but has concerns about the absence of implementation strategies for many of the recommendations.

Leonardo da Vinci Ireland compendium 1995-2000: the European dimension in vocational education and training / edited by Elizabeth Watters

Dublin: Leonardo da Vinci Ireland, [2001], 257 p.
Leonardo da Vinci Ireland,
189-193 Parnell Street,
IRL-Dublin 1,
Tel. (353-1) 8731611,
Fax (353-1) 8731611,
E-mail: leonardo@leargas.ie,
URL: http://www.leonardo-ireland.com
Note: A full listing of Irish-led projects is available on the following website at www.leonardo-ireland.com

The compendium lists the full range of projects undertaken in the Leonardo programme in Ireland from 1995-2000. Seventy two pilot, placement and exchange, and survey and analysis projects are described. The introduction to the compendium gives a broad overview of the programme, the operation of the National Coordination Unit (NCU) and statistical information. It also provides a useful listing of publications and materials developed by the NCU. The following sections give full details of each project – sector, target group, products, contact details and project description. Projects are indexed according to promoting organisation type, theme and partner countries. The publication is in loose-leaf format to facilitate the addition of information on yet-to-be completed projects.

National Training Fund Act, 2000 / Government of Ireland

Dublin: Stationery Office, 2001, 10 p.
Government Publications,
Postal Trade Section,
4-5 Harcourt Road,
IRL-Dublin 2,
Tel. (353-1) 6613111,
Fax (353-1) 4752760

This Act sets out the terms for the imposition of a new training levy on employers to replace the previous Apprenticeship and Levy Grant Schemes. The Fund will support training initiatives including company-specific and sectoral training programmes, apprenticeships and traineeships, and employment-related programmes for the unemployed.

NL Learning without constraint: a foresight study on education and research in 2010 / Ministerie Onderwijs, Cultuur en Wetenschappen - OCenW

's-Gravenhage: Ministerie Onderwijs, Cultuur en Wetenschappen, 2001, 87 p.
Ministerie van Onderwijs, Cultuur en Wetenschappen,
Europaweg 4,
Postbus 25000,
NL-2700 LZ Zoetermeer,
Tel. (31-79) 3232323,
Fax (31-79) 3232320,
URL: http://www.minocw.nl

To guarantee and reinforce quality, variety and accessibility of education, it is essential to continue innovating and mak-

ing investments. Rapid detection of children at risk, a new course for vocational education and more tailoring and flexibility in higher education are some of the measures needed to achieve those aims. Last year, the cabinet initiated studies into long-term policy options. Hermans, the Minister of Education, and Adelmund, the Secretary of State, presented options and alternatives in the education and foresight study 'Unlimited Learning'. With the help of this study, the Cabinet hopes to encourage social debate so that the next Cabinet will be able to take political decisions on these matters. The Cabinet also suggest measures, which are, in any case, desirable to keep education and research up to date. To further improve the quality and tailoring of education, work is being done to create more elbowroom and autonomy in schools. For schools to achieve this, extra investments in human resources are needed. In addition to that, it is necessary that all schools have good resources and buildings, thus creating a level playing field for all. Reducing compulsory curricula gives schools more scope to develop their own profile. The question remains, however, how much freedom there should be. In the last resort, the government could, for example, restrict itself to dictating minimum requirements for language and arithmetic. Members of the government outline possibilities for changing the provision of special needs for pupils and for combating educational disadvantages, both of which are currently fragmentary.

NO The Leonardo da Vinci Programme in Norway: implementation, outputs and impact: report 2000 / Kirke-, utdannings- og forskningsdepartementet - KUF
Oslo: KUF, 2000, 80 p.
KUF,
P.O. Box 8119 Dep.,
N-0131 Oslo

The general objective of this document is to report on the implementation and impact of the Leonardo da Vinci programme and the existing vocational training systems and arrangements in Norway as part of a broader European Community. The specific objectives have been to evaluate the programme in terms of the following aspects; was the organisation and administration/operation of the programme successful compared to the expectations? What were the achievements of Norwegian participation according to the general, specific and operational objectives of the programme? What are the impacts of the Norwegian participation on systems and arrangements related to training? What are the lessons to be drawn from the Leonardo da Vinci I for the next generation of the programme?

P Inquérito às necessidades de formação profissional das empresas 2000/2002. [Survey on the 'Vocational training needs' of enterprises 2000/2002] / Departamento de Estatística do Trabalho, Emprego e Formação Profissional - DETEFP & Ministério do Trabalho e da Solidariedade - MTS
Lisbon: Departamento de Estudos, Prospectiva e Planeamento, 2000, 178 p. (Estatísticas)
ISBN 972-704-199-X
ISSN 0873-5352
CIDES,
Praça de Londres 2-2º,
P-1049-056 Lisboa,
Tel. (351) 218441100,
Fax (351) 218406171,
E-mail: depp.cides@deppmts.gov.pt,
URL: http://www.deppmts.gov.pt/cict.html

The Survey on 'Vocational training needs' of enterprises 2000-2002 carried out by the Department of Studies, Forecasting and Planning of the Ministry of Labour and Solidarity, had the aim of evaluating short-term (2000) and medium-term (2001/2002) vocational training needs, and obtaining indicators on the situation prevailing in the enterprises. A sample survey covering all economic activities was addressed at the mainland level to 5210 enterprises with 10 employees or more (a postal survey in enterprises with 10 to 99 employees and direct interviews in enterprises with 100 and more employees). For the three years, 2000-2002, survey data revealed that for a universe of 37 403 enterprises with 10 or more employees, 11 833 firms representing 31.6% of mainland enterprises feel that short- and medium-term vocational training needs exist, while 25 570 enterprises, representing 68.4% of the total, have no iden-

tified training needs. With regard to the number of participants in training schemes, either in terms of personnel to be trained by the enterprises or in terms of already trained staff to be recruited, the predicted short- and medium-term needs amount to 957 000 persons altogether, 667 000 (69.7%) in the short and 289 000 (30.3%) in the medium term.

UK Competency frameworks in UK organisations / Linda Miller, Neil Rankin and Fiona Neathey.
London: Chartered Institute of Personnel and Development, 2001, 70 p.
ISBN 0 85292 912 9
Plymbridge Distribution Ltd,
Estover,
UK - Plymouth PL6 7PZ,
Tel. (44-1752) 202301,
Fax (44-1752) 202333,
E-mail: orders@plymbridge.com

This CIPD research report reviews the current state of play in the management and development of competencies in UK organisations. Based on data from over 100 organisations, it includes a typology of competency frameworks built around key issues and functions. It seeks to clarify the state of practice in establishing, implementing and using competency frameworks within UK organisations.

Creating learning cultures: next steps in achieving the learning age.
National Advisory Group for Continuing Education and Lifelong Learning - NAGCELL
Sheffield: DfEE, 2000, 40 p.
ISBN 0-85522-945-4
DfEE Publications, P.O. Box 5050,
Sherwood Park, Annesley,
UK-Nottingham NG15 0DJ,
Tel. (44-845) 60 222 60,
Fax (44-845) 60 333 60,
URL: http://www.dfee.gov.uk

In this report, the National Advisory Group for Continuing Education and Lifelong Learning advises Government on practical ways of taking forward lifelong learning issues. In particular it advises on: the contribution of lifelong learning to community development; how learning can be opened up to those adults currently least engaged with the education system; how to stimulate and broaden demand from mature adults; how to identify and disseminate practical examples of effective partnerships for planning and delivery of lifelong learning locally.

Exploring e-learning / Emma Pollard and Jim Hillage.
Brighton: Institute for Employment Studies, 2001, 68 p.
(Report, 376)
ISBN 1 85184 305 1
Grantham Book Services Ltd,
Isaac Newton Way,
Alma Park Industrial Estate,
UK-Grantham NG31 9SD,
Tel. (44-1476) 541080,
Fax (44-1476) 541061

This briefing examines the key issues facing organisations looking to upgrade their learning provision to make the most of modern technological opportunities. It highlights key issues for organisations to consider when developing their approach to e-learning, including: how best to blend new e-learning technologies with traditional classroom approaches to training; whether to buy-in new off-the-shelf materials, develop content externally or in-house; how best to provide learner support; how trainers will adapt; and how to tell if the strategy is working.

Successful futures: community views on adult education and training / Helen Bowman, Tom Burden, John Konrad.
Joseph Rowntree Foundation
York: York Publishing Services, 2000
ISBN 1-90263-389-X
York Publishing Services,
64 Hallfield Rd, UK-York YO31 7ZQ,
Tel. (44-1904) 430033,
Fax (44-1904) 430868,
E-mail: publications@jrf.org.uk,
URL: http://www.jrf.org.uk/

Current UK government policy explicitly links the importance of work, education and training. The focus is on work and training as the principal means of dealing with poverty and social exclusion and this is reflected in programmes such as the New Deal. This study focuses on the perceptions of those targeted by these policies,

in this case people living in a disadvantaged area in the north of England. It explores: how people perceive the relationship between work, education and training; how this affects attitudes towards participating in education and training as an adult; how people perceive the credibility of qualifications, in particular in the eyes of employers; what employment practices promote or inhibit participation in education and training; to what extent people feel policy implementation matches its stated aims and intentions.

The e-learning revolution / Martyn Sloman.

Sloman, Martyn
Chartered Institute of Personnel and Development - CIPD
London: CIPD, 2000, 217 p.
ISBN 0852928734

This text focuses on the evolving role of trainers and training within the organisation. It urges trainers not to be seduced by technology at the expense of their ultimate objective - to enhance learning. Built around a series of propositions, it examines: why barriers between knowledge management, performance management and training must fall if competitive advantage through people is realised; how technology that offers learner-centred opportunities will redefine the concept of the learning organisation; why expertise in soft technology will give trainers new credibility; why time, not spend will be the scarce resource as learning competes with other organisational demands; the validity of corporate universities and virtual business schools; and what can be learnt from the different strategic responses to e-learning of blue-chip companies.

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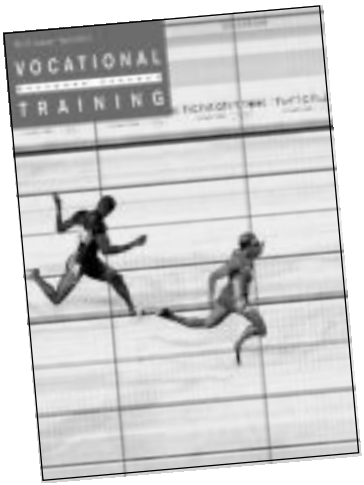

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