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Vocational education and training in the new Member States of the European Union

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Introduction to the special issue

For the Cold War generation who grew up after the Second World War, what happened on 1 May 2004 was truly unprecedented. Ten countries with histories so turbulent and destructive that no author of political fiction would ever have dared to predict such an outcome 20 years earlier, tied their fate to that of the European Union:

- two Mediterranean island states, Malta and Cyprus;
- one country - Slovenia - that used to be part of the feuding communist federation of Yugoslavia;
- four former 'satellite' states of the Soviet Union that had been firmly locked into Comecon and the Warsaw Pact - Poland, Hungary, Slovakia and the Czech Republic - the last two of which had earlier agreed on the peaceful dissolution of a union that had lasted 75 years as Czechoslovakia;
- three Baltic States whose fate had come to be thought of as permanently tied to that of the Soviet Union and Russia: Estonia, Latvia and Lithuania.

These 10 states, each very different from the others, joined a European Union that is already so diverse and has so many economic, political, social, linguistic and cultural differences that it seems a miracle that it has not already collapsed.

Nevertheless, what the Cold War generation, especially in the countries of 'Old Europe', thought miraculous and unlikely, is seen as so natural and logical in the new Member States, particularly by young people born after 1980, that they do not seem surprised by it. They take it for granted. It is part of the natural order of things. They have always seen themselves as Europeans. Without them, Europe was 'hemiplegic', as Milan Kundera has put it. And even though they sought the shelter of NATO before joining the European Union, this was done in order to affirm their unstoppable European destiny. And yet, no sooner had they seen this dream achieved, they elected their representatives to the European Parliament with a degree of indifference greater even than that shown in the countries of Old Europe.

All of this gives pause for thought. Did we move too fast? Is this new state of affairs truly viable? Are there not too many differences between the 'Old' and the 'New'? In the 'Old' EU15 the newcomers are treated with an element of suspicion, born of the fear that the mass expansion of the European family will destabilise institutions that may not yet be sufficiently firmly established and robust to withstand the arrival of newcomers from such different economic systems, which have only very recently adopted the market economy. And there are also worries that this influx will place a strain on the benefits of Social Europe. In the 10 new accession countries there are great expectations of a rise in the standard of living, but there are also clear concerns about the social consequences of joining a European Union that had become a major economic power but that was still so underdeveloped and unsteady in the sphere of international policy.

Thus there is a huge question mark over the capacity of the European Union to absorb 10 new members that are widely different both from each other and from the old EU15, which was itself characterised by its diversity.

The European Union has, it is true, always been proud of its differences. It is often said that we are richer because of them. And at a stroke we have become a lot richer.

What remedies, tools and practices atre capable of allowing us both to consolidate the economic and social benefits of the Old Europe and meet the challenge of integrating the newcomers? Through the Lisbon and Barcelona summits, the Bruges summit and the Copenhagen Declaration, the European Union has made a clear choice as to how it intends to proceed. It has realised that its economic and social development depends among other things on education and training. Education and culture, vocational training and lifelong learning are henceforth part of the foundation on which the European Union has decided to build its future and to consolidate the Union among its members, alongside employment policy, research and good economic governance.

To return to the differences that enrich us, it should not be forgotten that it is not possible to live together without some minimal common basis. We need at the very least to be facing in the same direction. Furthermore, no union can last if some of its members are condescending and others are mistrustful.

In this special issue of the European Journal Vocational Training, we have brought together a number of articles which all demonstrate a degree of convergence not only of our points of view, but also of the questions we ask about the future of vocational education and training in both the new and old Member States. Throughout the Union it is evident that there is a shared view on the prime importance of developing human resources and skills. The European Union has clearly opted for a high degree of harmonisation and convergence in vocational education and training.

However, as Jean-Raymond Masson shows in his introductory article, on *Implementation of the Lisbon objectives by the acceding and candidate countries*, the new Member States generally lag well behind the EU15 in vocational education and training. The gap would appear to be even wider than is evident from raw analysis of European Union indicators. He shows in particular how the gaps and the difficulties encountered are rooted in the problems of economic transition and of shifting social and cultural paradigms, and how the differences will make it difficult to achieve the goal of making Europe the most competitive knowledge-based economy in the world by 2010.

Věra Czesaná and Olga Kofroňová, for their part, show in their paper entitled *Attitudes to education and educational pathway preferences in the Czech Republic* how the importance and prestige of education have increased in the Czech Republic following the changes of 1989, and how young people are struggling to reach as high a level of education and training as possible, one of the main features of the Czech population being its very small proportion of people with low skill levels. Young people are nonetheless aiming at higher education that is more general, and are being pushed in that direction by their families. But they then come up against selective university entry, which makes access to higher education difficult for those young people with a technical 'maturita' qualification, and access to university well-nigh impossible after the additional year of education required of young people who have followed a vocational stream. This further reduces the prestige of technical education, and especially of vocational training.

A similar trend can be seen in Slovenia. In *Adjusting to falling VET interest in Slovenia*, Ivan Svetlik gives an overview of the development of vocational education and training in that country and shows how, in a country where VET used to be delivered through apprenticeship (dual system), this is gradually being replaced by training in educational establishments, and the author stresses the difficulties faced in relaunching block release training. Furthermore, despite the modernisation of VET brought about by the process of joining the European Union, in Slovenia just like in the Czech Republic, Poland and the Baltic States, young people tend to prefer general higher education courses to traditional vocational training, even though this means making a major contribution out of their own pockets to the costs of their education.

In Poland more specifically, faced with this widespread tendency among young people to want to pursue more generalist courses of higher education, reform of VET has aimed at increasing the number and variety of post-compulsory courses in order to respond to young people's different skills and

abilities. In *Reform in Polish vocational education*, Maria Wójcicka emphasises the benefits for Poland of this diversification, which opens up the prospect of young people gaining qualifications through higher education courses that will be more vocational for some, and more traditional and general for others. At the same time, in order to make school-leaving qualifications more meaningful, the levels of the relevant examinations have been standardised. In consequence, the new upper secondary leaving certificate is based on transparent standards developed jointly by schools and institutions of higher education. Here too, however, although reform in Poland has aimed explicitly at two objectives, namely the elimination of the 'dead ends' to which initial basic vocational education previously led - a path followed by a considerable proportion of young people (20 %) - and the promotion of general courses in post-secondary education, greater progress would appear to have been made towards achieving this second objective, while there is still a long way to go to achieve the first, as is the case in the Czech Republic.

However, refocusing the education system on the motivation, needs and skills of students is one of the hardest tasks facing VET in Europe. The challenges posed to VET by globalisation, the technological revolution and the shift to a knowledge-based economy mean that vocational education and training systems need to be rethought, as desired in Poland, and more importantly the teaching profession needs to be prepared for its new role and for this new way of working with students. Hence, the training of future teachers, particularly of those preparing for careers in VET, needs to be reconsidered, and teachers already with a number of years of service urgently need to be retrained through continuing training. However, 'teachers have generally lost out as a result of the changes that have taken place since 1990, as have the resources devoted to their training,' as Jean-Raymond Masson suggests in his article published below. 'The profession is currently largely dominated by women, to a degree that is generally greater than the European average', and it is ageing. Above all, 'training does pose a problem ... particularly in technical and vocational education, where a large proportion of "technical" teachers is regarded as non-qualified'. It is therefore not surprising that two of the articles presented here, both of them from the Baltic States, focus on precisely this issue.

The Lithuanian article by Kestutis Pukelis, *Reshaping vocational teacher education and training strategy in Lithuania*, stresses specifically the new role of the teacher in initial and continuing vocational education and training (ICVET) and ICVET schools. The article begins by reviewing the teaching skills of teachers in present-day Lithuanian VET. It then looks at the way in which training will be organised for these teachers in future, so that there is a genuine change in the practices of the VET teaching body in that country. The author ends on a fairly pessimistic note, however. He complains of the lack of resources available to implement these principles in everyday practice, and expresses the hope that structural funds can be used for this purpose.

The question of VET in Latvia is also addressed by Andris Kango from the standpoint of training for VET teachers in his study entitled *The Bologna Declaration and professional teacher training in Latvia*. The author discusses VET practices in Latvia from the standpoint of professional training for VET teachers, as if through a set of mirrors. He stresses that it is no longer possible nowadays to be content with training experts in one or more specialisms. What matters is learning to learn, both at school and in life, and VET teachers have the difficult task of teaching young people, and the not-so-young, to learn. Hence the importance of their own training. The author goes on to argue for integrated, modular training, combining training in the subject with parallel training in teaching methodology in one and the same course, in place of consecutive training, in which training in teaching methodology only comes after the acquisition of a basic knowledge of the subject that the teacher is expected to pass on to students. Latvia, where both types of training exist side by side, thus offers an excellent opportunity for comparative study and evaluation.

From all of these papers, it is evident that two areas of ICVET stand out as undervalued and underdeveloped in the new Member States, namely recognition of informal learning, and continuing training in the workplace, two key fields of lifelong learning. Insufficient attention is given by employers to the need to retrain the workforce to cope with the continual structural reorganisation

of present-day enterprises, which are also having to face up to the problems of the change of economic system and the move to the market economy. Nonetheless, as Gerd Schienstock shows in his article entitled *Learning competition and business restructuring in the enlarging EU*, based on surveys carried out in both the new Member States and in the countries of EU15, this shortcoming is not unique to enterprises in the new Member States.

All things considered, it is evident from these reports that while the new Member States undeniably lag behind the old Member States in a number of ways in terms of initial and continuing vocational education and training, their interest in education and training is growing rapidly. In some respects they are far from being left behind and have things to teach and experience to share with the countries of EU15. The vast majority of the new Member States display a clear capacity to retain pupils in initial training and to prevent drop-out. Most also have a high proportion of the population with a level of educational qualifications corresponding at least to completion of post-compulsory secondary education (cf. the typology of candidate countries according to education and training issues provided by Jean-Raymond Masson). In the PISA study, the results of the Czech Republic are better than those of many countries in the Old Europe. Some countries demonstrate a good capacity to adapt to the new technologies (Estonia). As a whole, however, it is nonetheless the case that they are still lagging some way behind in terms of the funding allocated to initial VET, teacher training and continuing VET, particularly because of the very low level of involvement of the social partners in this process. Lastly, they have very poorly developed active labour market policies.

That is not to say that the EU15 countries can teach others lessons, or that the VET situation is marvellous in the old Member States, even though there is clearly still a wide gap between them and the new Member States. This gap is in fact smaller if the field of education is taken as a whole, and it may be, as Jean-Raymond Masson suggests, that some of the new Member States will make faster progress than others, including some of the countries of EU15, towards the knowledge-based society, the goal set by the Union following the Lisbon summit, because they will find it easier to relaunch their training/qualification systems of education as they are not burdened by the historical and social legacy of VET systems that can often be difficult to modernise.

However, this special issue of the European Journal does not claim to be exhaustive, or to provide a complete review of initial and continuing vocational education and training in the new Member States and in the counties that are still candidates for membership of the European Union. It provides some insights, which deserve to be, and will be, added to in future issues of the European Journal, particularly through a whole series of articles that are still being assessed. It also raises a number of questions about ICVET in the countries of the old EU15 themselves. Papers providing a comparative analysis of VET policy in the candidate countries, the new Member States and the countries of the old EU15 are therefore still welcome, with this special issue being regarded as a starting point for discussion of this theme.

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An evaluation of the state of lifelong education and training and lifelong learning strategies

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The article provides an overview of reforms carried out and of the state of the education and training system in the former acceding countries and the candidate countries. First, it reveals the considerable mismatch between the quantitative efficiency of the education systems and the lack of education and training provision for adults. It then considers the economic context and the unemployment situation, showing the extent to which matters associated with transforming the 'socialist' model of economic structures still adversely affect the updating of training systems. The third and fourth sections examine the stages by which education and training policies have been introduced since 1990, and the challenges that they face today, especially in the design of lifelong learning strategies.

Introduction

The draft joint interim report by the Council and the Commission on the implementation of the 'Education and Training 2010' programme covers the 25 countries of Europe following enlargement on 1 May 2004 ('Education and Training 2010', 2004). In the preamble, this states that the involvement of the new countries and their experience of reforms is already contributing to the overall progress made by the European Union ([1]). Furthermore, in evaluating the reforms undertaken and how far the results achieved meet the objectives of the programme, the report takes the view that there is a need to speed up the pace of reform. The document also points to differences between the initial situations of the various countries and the need for reforms to reflect the different situations and national priorities. It then reiterates the scale of the progress that the new countries must make towards developing a knowledge-based economy and society, and it stresses the need for them to play a full part in the work programme and to receive appropriate support in doing so ([2]).

However, it should be remembered where these countries are coming from, the extent to which, less then fifteen years ago, their economies and societies were confined by the straitjacket of the centrally-planned economy still imposed, and the limited range of courses and qualifications offered by their different education and training paths. It is also important to remember the scale of the demands made on their initial and continuing education and training systems from the very beginnings of transition by individuals and employers, rapidly expanding small and medium-sized enterprises and foreign investors, although loan agencies and above all the European Commission gave them unstinting advice and funding, and launched a huge number of initiatives. At the same time, the rapid growth in unemployment and in inequality helped to create new needs against a background of more severe financial constraints.

The acceding and candidate countries have changed considerably since the fall of the Iron Curtain, and they are now fully involved in the European cooperation processes in the field of education and training which are working towards the Lisbon objectives that aim to make Europe the most competitive and dynamic knowledge-based economy in the world by 2010 (Presidency Conclusions of the Lisbon European Council, 2000; Conclusions of the Barcelona Council, 2002; Communication from the Commission - 'Education and Training 2010', 2003). There are therefore two driving forces behind the changes taking place in these countries: the first, which emerged in the early 1990s, was the need to adopt the standards of the market economy and the rule of law, reinforced by the enlargement strategy, and the second was launched by the Lisbon Council in 2000. It is apparent that the first has not yet produced all the intended effects, which explains the concern expressed in the draft interim report that future reforms should take account of the different situations in the various countries.

([1]) Paragraph 3 of the joint interim draft report of 12/02/2004.

([2]) Section 1 of the joint interim draft report of 12/02/2004.

	Upper sec. ([3])	Drop-out from educ. ([4])	Science students ([5])	Readg level ([6])	Lifelong education ([7])	Public expend. educ. ([8])	Expend. higher/ secondy([9])	Training enterpr. ([10])	Higher ed. ([11])
EU15	75.4	18.8	11.8	17.2	9.7	4.9	1.4	–	21.6
EU benchmark	85	10	–	–	12.5	–	–	–	
Cyprus	86.9	14	13.1	–	7.9	5.6	1.4	–	26.8
Estonia	89.2	12.8	8.7	–	6.2	6.7	–	47	29.4
Hungary	87.2	12.3	4.6	22.7	6	4.5	2.4	24	14
Latvia	71.2	19.5	6.4	30.1	8.1	5.9	1.7	26	18.1
Lithuania	83.5	14.3	4.9	–	4.5	5.8	1.5	21	
Malta	43	–	4.8	–	4.2	4.9	1.7	–	7
Poland	91	7.6	5.5	23.2	5	5.1	1.7	26	11.7
Czech Rep	93.4	5.4	14.6	17.5	5.4	4.4	1.7	61	11.6
Slovakia	94.6	5.6	7.7	–	4.8	4.2	2.6	–	10.7
Slovenia	88.1	4.8	5	–	15.1	5.6	–	33	14.1
AC10	90.1	8.4	–	–	–	–	–	–	–
Bulgaria	75.6	21	4.8	40.3	1.4	4.4	–	17	21.3
Romania	73.8	23.2	5.3	41.3	1.3	2.9	1.8	7	10
Turkey	–	–	10.4	–	1.1	3.5	–	–	–
ACC13	–	–	6.1	–	–	4.9	–	–	13.9

([3]) The indicator shown gives the percentage of young people aged 22 years who had completed upper secondary education (the baccalauréat level in France) in 2002 (Commission Working Document and Eurostat Structural Indicators, May 2004).

([4]) The rate of drop-out from education is measured by the percentage of young people aged 18 to 24 years who had only reached the level of lower secondary education and had not taken any education or training in the four weeks immediately preceding the date of the survey in 2003 (Eurostat Structural Indicators, May 2004).

([5]) The figure for science is given here by the percentage of those aged 20-29 years studying science in higher education in 2001 (Eurostat, Statistics on Science and Technology, 2003).

([6]) The reading level is given as the percentage of young people of 15 years of age reaching level 1 in reading performance on a five-level scale. These measures are taken from the PISA survey (Programme for International Student Assessment) conducted in 2000 by the OECD. To date, only the Czech Republic, Hungary, Poland and Latvia have taken part in the survey, in 2000, and more recently Romania and Bulgaria.

([7]) The indicator for participation in lifelong education is given by the rate of participation in educational activities during the four weeks preceding the survey (Eurostat Labour Force Survey 2003 data, Eurostat Structural Indicators, May 2004).

We therefore need to ask ourselves how far these countries have got in achieving the European objectives for 2010, with particular reference to the objectives of expanding lifelong learning. But we should also ask whether the monitoring and evaluation tools introduced at the European level will produce a sufficiently sound analysis of the progress made and the difficulties encountered. An assessment should also be made of how these difficulties may hinder achievement of the objectives. Given that analysis of the strengths and weaknesses of education and training systems, and of the results already achieved, reveals a number of specific shortcomings and individual bottlenecks due to structural phenomena, questions also need to be asked about the corrective steps to be taken and the specific priorities to be observed in the European strategy for lifelong learning.

These are the questions to which this article seeks to find answers. First, the education and training systems of the acceding and candidate countries need to be assessed using the indicators and European benchmarks that have now been developed as part of the objectives process. Next, an attempt will be made to analyse the issues in greater depth, taking into account the situation and the main changes occurring in the economy, employment and the labour market, and then to review the principal education and training process reforms undertaken since the beginning of the transition. It will then be possible to express an opinion on the strategies being implemented, and the ways in which they need to be modified.

Assessment of the acceding and candidate countries against the five European benchmarks for education and training systems, the 29 indicators and some others

To complement the joint interim report, the European Commission published a working document based on a detailed analysis of the performance of European countries according to five European benchmarks and a set of 29 indicators for education and training worked out for a total of 30 countries: the countries of EU15, plus the acceding and candidate countries except Turkey, together with Iceland, Norway and Liechtenstein (Commission Working Document: Progress towards the common objectives in education and training, 2004).

The table below shows some of the most significant indicators drawn from these documents and from the reports produced by the European Training Foundation (Jean Raymond Masson, 2003; Jean-Raymond Masson, May 2004). The analyses which follow are based on all of these documents and a number of Eurostat publications, particularly on structural indicators. The results are given by reference to the 15 countries in the European Union before 1 May (EU15), and to the EU benchmarks. They also include, where

known, the averages of the 10 acceding countries (AC10) and the 13 acceding and candidate countries (ACC13), which include Romania, Bulgaria and Turkey.

A number of encouraging performances in the field of education

Some of the most discriminating indicators reveal superior performance in the acceding and candidate countries. For example, the rate of completion of secondary education at 22 years of age is over 90 % in the acceding countries but only 75.4 % in the EU15, while the benchmark for 2010 has been set at 85 %; similarly, the rate of drop-out from education ([12]) stands at 8.4 % among the acceding countries, well below the EU15 level of 18.8 % and even below the European benchmark of 12.5 %; or again foreign language learning in upper secondary education, where pupils in most of the acceding and candidate countries learn two languages as against an average of one and a half in the EU15.

Furthermore, some indicators show a great diversity within the acceding and candidate countries, while their average is close that of the EU15: this applies particularly to public expenditure on education measured as a percentage of GDP, which is markedly higher than the EU15 average in Cyprus and the Baltic States, and appreciably lower in Romania, Bulgaria, the Czech Republic and Slovakia; the same applies to private expenditure on education, which of all the European countries is highest in Cyprus at 1.2 % of GDP, and is also high in Latvia, at 0.8 %, while it is below the EU15 average of 0.6 % in the other countries, and especially low in Romania and Slovakia. It is also true for the rate of enrolment of 15-24 year-olds, which shows Poland, the Baltic States and Slovenia above the EU15 average and the other acceding and candidate countries considerably below.

Major shortcomings according to some of the 29 indicators, particularly in the fields of key skills and adult education

On the other hand, there is a long list of indicators showing an appreciably lower level of performance in the acceding and candidate countries than in the countries of the EU15. For example, the reading level of young people aged 15 years in the new countries, with the exception of the Czech Republic, is well below that of the EU15, and the European benchmark; the proportion of students enrolled in mathematics, science and technology courses is generally lower, especially in respect of young women.

In all the acceding and candidate countries expenditure on education per student, measured in PPE euro ([13]), is around 40 % of the expenditure in the countries of the EU15 in higher education, a third in secondary education, and less than half in primary education ([14]). When compared with GDP per inhabitant, expenditure per student balances out. But the ratio of expenditure on higher education to that on secondary education is higher in all the candidate countries than it is in the European Union, where expenditure on the former is 37 % higher than on the latter. In other words, in the larger countries (the Czech Republic, Poland, Romania, Slovakia and Hungary), where public expenditure on education is appreciably below the European average, secondary education has been widely neglected, and initial technical and vocational education, which accounts for the largest proportion of students in secondary education, even more so.

The rate of participation in education and training among 25 to 64 year-olds varies considerably both among the acceding and candidate countries and between them and the EU15: with an average rate of 4.9 %, the acceding and candidate countries are below the EU15 average of 9.7 %, and well below the European benchmark of 12.5 %; and the less well-educated the reference population, the wider the gap: participation among the least skilled ([15]) is 0.7 %, compared with 2.3 % in the EU15.

Expenditure by enterprises on employee training, measured as a percentage of salary costs, is considerably lower in the acceding countries, where only the Czech Republic (1.9) and Estonia (1.8) stand out, while still remaining well below the EU15 average of 2.3. Consequently, the average number of working hours that enterprises devoted to training is significantly lower in the acceding and candidate countries: 4 per 1000, as against 7 per 1000 in the EU15. A detailed analysis of the results of the survey ([16]) reveals great inequalities in access to training, far higher than in the EU15. The enterpris-

([8]) Public expenditure on education is measured as a percentage of GDP in 2000 (Commission Working Document, Eurostat 2000).

([9]) The indicator measures the importance attached to higher education in relation to secondary education in public expenditure by comparing the unit cost per student in higher education with the unit cost per student in secondary education in 2000. (Data extracted from the Commission Working Document, Eurostat 2000).

([10]) The indicator measures the percentage of enterprises with more than 10 employees pursuing training initiatives for their employees (CVTS2 Survey, Eurostat 2000-2001).

([11]) The indicator measures the percentage of 25-64 year-olds with training at higher education-level (ETF Report, Eurostat Labour Force Survey 2001) .

([12]) Measured as a percentage of 18-24 year-olds with a level of education below upper secondary and not pursuing any training course.

([13]) Purchasing Power Equivalent.

([14]) Only in Cyprus is expenditure comparable to the EU15 average.

([15]) Those who have a level of education lower than that attained at the end of upper secondary education (CITE 0 to 2).

([16]) This refers to the first survey of vocational education in the candidate countries carried out by Eurostat in 1999 in parallel to the second survey of vocational education in the EU countries (CVTS2) / Results published in 2002.

es providing training tend, for example, to be larger and to be in banking and finance rather than manufacturing and public services.

Lessons from other indicators

Although curiously absent from the list of 29 indicators monitoring the 2010 education and training objectives, a number of surveys and statistical observations permit more detailed evaluation of the situation in the acceding and candidate countries. While taken as a whole these results confirm the above analyses, they help to identify problems more clearly and highlight the forces at work in the education systems and the appalling lack of resources for labour market training.

According to PISA ([17]), the results for mathematical and scientific culture are better than those for reading. However, with the exception of the Czech Republic and Hungary for scientific culture, the results fall within the bottom half of the table and those of Romania, Bulgaria and Latvia are among the lowest.

The TIMSS survey ([18]) looks at performance in science and mathematics. Unlike PISA, which is concerned with the ability to put accumulated knowledge to good use, TIMSS provides information on academic knowledge. Some candidate countries obtain good results: Hungary, the Czech Republic, Slovakia and Slovenia, for example, are in the top half of all the European countries studied, and Hungary is in first place for science ([19]). Furthermore, the comparison between 1995 and 1999 shows that Latvia, Lithuania and Hungary have the best rates of progress of all OECD countries.

Similarly, the results of the PIRLS survey ([20]) on the reading level of children aged 10 years are encouraging: among the 10 candidate countries studied, eight are above the international average, and Bulgaria, Latvia, Lithuania, Hungary and the Czech Republic are among the top-ranking countries.

According to a recent Eurostat study on higher education (Strack, 2003), figures for 2001 show a rate of participation by 20-29 year-olds in higher education of 25.5 % in the acceding and candidate countries, almost the same level as the European Union's 26 %. At the same time, the number of new graduates produced each year in the candidate countries now exceeds by far the number of graduates in the European Union: 55.3 per 1000 inhabitants aged 20-29 years in the candidate countries in 2001 as against 40.4 in the EU. However, the breakdown of students by discipline is very different. There are about half as many students studying science as there are in the European Union: 6.1 % of 20-29 year-olds compared with 11.8 %. Among the candidate countries, only the Czech Republic and Cyprus have higher rates than the European average, while Hungary, Malta, Slovenia and Lithuania are at 5 % or less. Continuing training for teachers is significantly less well developed in the acceding and candidate countries than in the EU. The level of qualification of the adult population is lower than that in the European Union, especially in quantitative terms in relation to the proportion with a higher education qualification, but more particularly in qualitative terms generally. According to the most recent Eurostat statistics, the candidate countries are at the level of the cohesion countries in respect of participation in continuing education and training, well below the European average, with Romania and Bulgaria at the level of Greece, around 1.5 %, and Malta, Poland and the Czech Republic at the level of Spain, around 5 % to 6 %; however, Cyprus and Latvia at 8 % and Slovenia at 15 % stand out from the rest. The situation is also problematic and very mixed in the case of training for employees offered by enterprises. And the most serious problem is the under-development of training for the labour market, especially for the unemployed, in most of the countries ([21]).

Initial conclusions

In total, looking at the five European benchmarks for 2010, it is found that the acceding countries ([22]) paradoxically perform better than the EU15 countries, and even exceed the first (percentage of drop-out from the education system) and the third (completion of upper secondary education) benchmarks, although the reverse is true for the remaining three benchmarks (percentage of graduates in mathematics, science and technology; level of understanding in reading; participation in education and training by the adult population).

But if all the indicators available are considered together, it is possible to draw up an initial set of conclusions with regard to the acceding and candidate countries:

([17]) See above Note 9.

([18]) Third International Mathematics and Science Study, conducted in 1995 and 1999 among pupils in their 8th year of schooling. It covered all the candidate countries except Poland, Malta and Estonia.

([19]) On the other hand, Turkey, Romania and Cyprus are ranked among the lowest.

([20]) PIRLS (Progress in International Reading Literacy Study) International Report, produced by the IEA (International Association for the Evaluation of Educational Achievement) in 2003 on the basis of a survey carried out in 35 countries in 2001.

([21]) There are wide differences between countries. Slovenia has already passed the European benchmark of 20 % of the unemployed undergoing training during the year, and Malta is close to this level, while Estonia and Hungary are at around the half-way mark and the Czech Republic and Poland are appreciably lower. If new entrants to labour market training are taken as a percentage of the active population, Hungary comes out better than Germany, although the rate of unemployment is higher there, while the Czech Republic and above all Poland have much lower results, particularly when compared with the countries in the Union with similar rates of unemployment.

([22]) A distinction should be made here between acceding and candidate countries since Romania and Bulgaria perform much less well on these two points.

The table below contains data to which reference will be made below.

	Growth 2002 ([23])	Exp. R&D ([24])	Emp. ([25])	Agr. emp.([26])	Ind. emp. ([27])	Serv. emp. ([28])	Older emp. ([29])	Un-emp. ([30])	Youth unemp. ([31])	Labour prod. ([32])
EU15	1.1	1.98	64.3	4.1	25	71	40.1	8.0	15.1	100
EU benchmark	–	–	70	–	–	–	50	–	–	–
Cyprus	2 .2	0.26	68.6	4.9	24	71.1	49.2	4.4	9.7	79.6
Estonia	5.8	0.78	62	6.9	31.2	62	51.6	10.1	17.7	43.4
Hungary	3.3	0.95	56.6	6.2	34.1	59.7	26.6	5.8	11.9	64.2
Latvia	6.1	0.44	60.4	15.1	25.3	59.6	41.7	10.5	24.6	38.7
Lithuania	5.9	0.69	59.9	16.5	27.2	56.3	41.6	12.7	21.4	43.6
Malta	1	–	54.6 ([33])	1.5	28.4	70	–	7.7	5.9 ([34])	90.1
Poland	1.3	0.68	51.5	19.3	33.8	52	50.9	19.3	41.7	50.3
Czech Rep	2	1.30	65.5	4.9	40.5	54.6	40.8	7.6	16.9	54.7
Slovakia	3.4	0.64	56.8	6.4	33.9	59.6	22.8	17.2	37.3	57.6
Slovenia	3.2	1.57	63.4	9.5	38	52.4	24.5	6.6	15.3	69.5
AC av.	–	0.83	–	–	–	–	–	–	–	53.6
Bulgaria	4.8	0.47	50.6	9.7	32.7	57.6	27	13.8	35.5	32.3
Romania	4.9	0.39	57.6	35.2	30.7	34.1	37.3	6.5	18.5	34.4
Turkey	7.8	0.64 ([35])	–	–	–	–	–	9.0	–	35.8

❑ Considerable differences exist between them, with Romania and Bulgaria in particular generally performing less well than the acceding countries and Union Member States.

❑ Education systems in the acceding countries are effective in quantitative terms and capable of providing schooling for the vast majority and preventing drop-out, but are largely academically based and still poorly prepared for the knowledge-based economy and society from the point of view of learning of key skills, even though positive changes are taking place in the countries investing most heavily in education.

❑ Higher education systems have expanded very rapidly but are still unable to give enough coverage to mathematics, science and technology.

❑ Investment in education is inadequate overall in most countries and shows a bias towards higher education to the detriment of secondary education and especially technical and vocational education, and teacher training.

❑ Systems of continuing education and training are under developed, are very unequal, depending on the size of enterprises, sectors of activity and level of education of the individual, and are therefore ill-equipped to remedy the lack of skills among the population as a whole.

❑ There is a particularly serious shortage of training for the labour market.

❑ Investment in training by enterprises is inadequate.

❑ And overall, a very marked imbalance between education and adult training systems.

Taking a broader and deeper view

For a better understanding of the significance of this paradox of the good performance reported above in the field of education and the poorer indicators in relation to adult education and training, we need to take the analysis further and take a broader and more indepth look at the situation. This is made possible by the work of the European Training Foundation already mentioned above. The reports by the Foundation are based on analysis of the changes that have taken place since the fall of the Iron Curtain; they examine the main economic and employment data and the most recent trends; they chart European cooperation with candidate countries as it developed throughout the 1990s up until their accession; they analyse the changes that have occurred in the fields of education and training, and in employment services; they recall the reforms undertaken and analyse the obstacles to their implementation; and they bring up to date in particular the questions relating to the governance and funding of systems.

([23]) Rate of growth of GDP as a percentage (Employment Report 2003).

([24]) Total expenditure (public and private) on research and development as a percentage of GDP in 2001 (Eurostat, May 2004).

([25]) Rate of employment in 2002 (Employment Report 2003).

([26]) Rate of employment in agriculture; data are for 2002 except for Bulgaria, Cyprus, the Czech Republic, Latvia and Lithuania, where data are for 2001, and Malta, where they are for 2000 (Employment Report 2003).

([27]) Rate of employment in industry; see the comments in Note 47.

([28]) Rate of employment in services; see the comments in Notes 47 and 48.

([29]) Rate of employment of persons aged 55 to 64 years in 2002 (Employment Report 2003).

([30]) Rate of unemployment in 2003 (Eurostat Structural Indicators, May 2004).

([31]) Rate of unemployment among young people from 15 to 24 years of age (Employment Report 2003).

([32]) Productivity of labour force by person employed: GDP in Purchasing Power Equivalents by person employed (relative to EU15 = 100 in 2003 (Eurostat Structural Indicators, May 2004).

([33]) 2002 data.

([34]) 2000 data.

([35]) 2000 data.

Upheavals in the economic landscape ([36])

The economy of the acceding and candidate countries is now based on a network of micro-enterprises. The network is more extensive than in the European Union, but is comprised of smaller micro-enterprises. The small-scale privatisation of the early 1990s and the influx of foreign, chiefly European, investment, although varying greatly from country to country, contributed to the rapid development of services and the swift creation and of a vast network of SMEs. In 1999, micro-enterprises (with fewer than 10 employees) represented 95.4 % of all enterprises in the candidate countries, compared with 93.1 % in the EU ([37]) and provided 40.2 % of jobs compared with 34.2 %, and the average size of an enterprise was 5 in the candidate countries compared with 6 in the EU (Observatory of European SMEs, 2002). Nonetheless, the candidate countries do not always have the type of advanced service sector common in the EU. Very few SMEs are heavily engaged in manufacturing activities involving investment in new capital and new technologies. The few SMEs which operate in manufacturing are much smaller and less experienced that those in the EU.

Furthermore, not everything has happened as fast; in particular large-scale privatisation, and even more so, industrial restructuring have been far slower and are far from complete. In a number of sectors that were heavily integrated within COMECON, such as armaments, major enterprises were closed down or broken up in the early or mid-1990s. But many continued to benefit from protectionist measures. The restructuring of the Polish steel industry did not really begin until the early 2000s, and the programme of restructuring and privatising the large Romanian heavy industrial combines began only in 2002. In addition, the measures taken in the early 1990s to privatise agricultural land usually created a large number of small properties that were not large enough to undertake the necessary modernisation.

As for economic growth, after a severe slump in the early years of transition in most countries, there was a general recovery in the early 1990s, followed by a further slow-down and even a downturn in the second half of the decade, with the exception of Cyprus, Malta, Hungary, Slovenia and Poland, where the economic crisis did not make its effects on growth felt until 2001. Since 2000, despite some slowing ([38]), most countries have maintained a high level of growth: over 4 % in 8 countries in 2000, 5 countries in 2001 and 6 countries in 2002 ([39]). While five of the 13 countries had economic higher growth than the EU in 1999, this figure rose to 10 in 2000 and 2001, and to 12 in 2002.

According to a study on the state of the economy in candidate countries (Boillot, 2003), the amount of direct foreign investment (DFI) in the candidate countries rose considerably throughout the 1990s and is still increasing. The author suggests that they are attractive not so much on account of the level of wages and salaries as the level of the human capital. Of all the candidate countries, Poland has been the largest recipient, followed by the Czech Republic and Hungary. What is more, the international attractiveness of the candidate countries is increasing year by year ([40]).

In return, this DFI will probably lead to increased productivity, improved skills and the expansion of vocational training. But this presupposes an active support and dissemination policy in all sectors of the economy, without which improvements will remain isolated and will contribute to growing inequality (Fragoulis, Masson, Klenha, 2004). Productivity is already very uneven between regions and sectors, and even within sectors between those enterprises which have received DFI and those which have not. There is also great inequality between countries, and productivity in all countries remains below the European average. In total, these inequalities in economic development help to maintain or worsen disparities between countries in terms of access to employment and training, and exclusion.

An examination of investment in research and development completes this brief review of the economy. While the European Union spent 1.98 % of GDP on R&D in 2001, the 10 acceding countries spent an average of 0.83 %, and only the Czech Republic (1.30 %) and Slovenia (1.57 %) exceeded 1 %. Furthermore, in the EU 56 % of the investment was made by enterprises, as against 41 % in the candidate countries, where research investment depends largely on the state.

([36]) Cyprus and Malta cannot be regarded as countries in transition between two different economic systems, any more than Turkey. For that reason, most of the following remarks apply more particularly to the 10 countries of Central and Eastern Europe.

([37]) This means that there are one-third fewer enterprises with more than 10 employees in the candidate countries than in the EU15.

([38]) With the exception of Lithuania, Romania and Slovakia. The slow-down was particularly noticeable in Cyprus (5.2 in 2000, 4.1 in 2001 and 2.2 in 2002), the Czech Republic (3.3, 3.1, 2), Hungary (5.2, 3.8, 3.3), Poland (4, 1, 1.3) and Slovenia (4.6, 2.9, 3.2).

([39]) Bulgaria, Estonia, Latvia, Lithuania, Romania and Turkey.

([40]) According to the study, 'four groups may be distinguished:
- Two economies, Hungary and Slovenia, at the stage of convergence towards the level of DFI of Spain and Portugal. The question is whether these two countries will stop there or will follow the pattern of the highly specialised small economies such as Finland and Sweden.
- Two very attractive and dynamic economies, the Czech Republic and Estonia, which have recently received twice as much DFI as their weight in the world. Malta is rapidly catching up with this process. It can be deduced from this that the flow of DFI to these countries may well rise significantly in the years to come.
- A group comprising Poland, Bulgaria, Latvia and Lithuania, which is around the average for the region, and below their world economic weight. They might be termed countries with a strong short-term potential if their economies continue to open up.
- A last group below their notional potential with two different trajectories: those taking off, such as Slovakia, and those still failing to catch up in line with their potential, such as Romania.'

Difficulties in the fields of employment and the labour market

For a long time, the growth observed has not led to the creation of jobs. On the contrary, employment has fallen heavily in most countries since the mid-1990s. Under the combined impact of continuing economic growth, demographic decline and the development of employment policies based largely on early retirement and employment subsidies, this fall appears to have been halted from 2000/2001, and an examination of the situation suggests stabilisation and even an improvement in some countries, with the notable exception of Poland and Romania. Nonetheless, rates of employment in 2002 were often below those achieved in 1998, and more particularly below the EU average (64 %), except in the case of Cyprus and the Czech Republic, and far below the European benchmark for 2010 (70 %). The slight improvement since 2000 has been of particular benefit to the older population. On the other hand, the rate of youth employment remains fearfully low, well below the European average, and the trend is still downwards in almost all countries.

Changes in the breakdown of jobs between sectors have been rapid, but seem to have slowed in the last few years. The fall in agricultural employment continues, but at a far slower pace than before 2000. It nonetheless remains well above the European level in Slovenia, the Baltic States and Poland, and above all in Romania, where it was still around 40 % in 2002 and provides an alternative for victims of industrial restructuring ([41]). Industrial employment also sufered an appreciable decline, but has now been very stable since 1999/2000 in almost all countries, and in most cases above the European average of 25 %, particularly in Hungary, Slovakia, Slovenia and the Czech Republic, where it is 35 % or more. Hence, employment in services, having risen very rapidly in the early years of transition, is growing only very slowly, far short of the level in the European Union, except in Cyprus, and still further from the European objectives for 2010. All this points to a considerable lack of labour mobility, and to the inability of education and training systems to respond to the needs of the labour market. Furthermore, a comparative analysis of working conditions shows that, on average, the candidate countries endure longer working hours, poorer conditions and more Taylorist work organisation than in the European Union (European Foundation for the Improvement of Living and Working Conditions, 2002).

The unemployment situation is still very worrying in most countries, but the most recent statistics suggest some improvement as unemployment continues to fall in Cyprus, Hungary, Latvia and Slovenia, while it has been falling since 2000/2001 in Bulgaria, the Czech Republic, Estonia, Lithuania and Slovakia, and has even started to fall since 2002 in Poland, Romania and Turkey. It nonetheless remains at very high levels in Poland and Slovakia, and is above the European average in 7 of the 13 countries. This improvement is particularly helping the long-term unemployed, and to a lesser extent younger people, among whom unemployment remains higher than the European average, except in Cyprus and Hungary. However, it is rising appreciably in Romania, Poland and Latvia.

As the Eurostat publication cited above suggests (Strack, 2003), completion of upper secondary education significantly reduces the risk of unemployment, particularly in the candidate countries. While unemployment rates for those who have completed upper secondary education are similar in the EU and candidate countries, for those who have not done, so the rate is double in the candidate countries. In 2001, the differential in the unemployment rate between those with intermediate qualifications ([42]) and the better qualified ([43]) among 15-39 year-olds was 50 % in the EU but 80 % in Romania and Estonia, 120 % in Bulgaria, the Czech Republic, Lithuania and Slovenia, 160 % in Poland, 190 % in Slovakia and 340 % in Hungary.

When transition began, employment policies were at first aimed at limiting growth in unemployment by adopting protectionist measures covering larger enterprises, and by expanding early retirement schemes. An attempt was also made to treat the question of unemployment by means of general systems of compensation, while public employment services were set up, chiefly to collect social security contributions and distribute benefits. At the same time, largely in the capital cities, large numbers of private offices were opened, principally to recruit senior local staff to work for foreign investors, and to help to train managers.

([41]) This is demonstrated particularly by the rise in agricultural employment from 40 % in 1997 to 45 % in 2000 in Romania while at the same time industrial employment fell from 30 % to 26 %. A similar development, although on a smaller scale, has been happening over the last three years in Poland.

([42]) CITE Level 3, corresponding to completion of secondary education.

([43]) At the level of higher education.

The generous policies of the early 1990s had to change abruptly when most countries were confronted with mass unemployment in the second half of the decade. Compensation schemes became far less active, and the public employment services had to take on a whole range of new tasks to provide individuals and enterprises with advice and support, for which they lacked the staff, training and equipment. Furthermore, the resources they had were still limited, while unemployment became worse. Overall, active labour market measures remain very poorly resourced and are largely devoted to job subsidies, chiefly through the direct creation of public employment with local authorities. Hence, the amount spent on training for the unemployed is extremely low in almost all countries ([44]). Moreover, only Hungary has succeeded in devoting some of its training schemes to preventative measures.

The economic roots of the difficulties of the education and training systems

From this review of the economic and employment situation, it is apparent that transition is far from complete. While the market economy principles of the European Community, and its institutional foundations, are respected, at least in the 10 acceding countries, the economies of most of these countries still reveal considerable shortcomings by comparison with the EU15, in terms of both competitiveness and economic and social cohesion. Considerable changes have taken place, but the network of small enterprises is still very fragile and incapable of contributing significantly to the innovation and research effort required under the Lisbon Strategy, while the slow pace and difficulties of industrial and agricultural restructuring are worsening the imbalance between regions and social cohesion.

The Lisbon objectives for jobs and unemployment and R&D seem even further off than those set for education. This reflects and goes some way to explaining the comments already made about the imbalance between education and adult education and training. It is also clear how the difficulties and achievements identified above in the field of education and training have their roots in structural phenomena. And it is clearer how these shortcomings hinder economic development and social cohesion. Shortcomings are to be found both among enterprises and employment services in the provision of the necessary training and retraining. However, serious mismatches are also emerging between the qualifications produced by the intermediate level of the education system and the needs of the labour market. The rates of unemployment among young people are extremely worrying in most countries, especially among those without higher education qualifications, even though rapid expansion of access to higher education and demographic decline are reducing the numbers leaving education at this level.

The creation of jobs in services and developing industries has benefited essentially those with higher education qualifications, especially the large numbers of young people completing higher education courses in management, tourism, information technology and foreign languages. But there is a danger that this process will reach its limits if secondary and higher education cannot succeed in further developing intermediate and higher-level qualifications in science and technology, which investors (both domestic and foreign) now need so that they can increase their competitiveness and prepare for the knowledge-based society.

It is obvious at the same time that the cumbersome nature of the former economic system, in which vocational training and the economy were organically linked, still affects the education and training system. It comes as no surprise to find that that some vocational schools have difficulty in evolving, given that they were situated right next door to the industrial dinosaurs for which they provided whole cohorts of workers each year, and that limited public funding has prevented them from undertaking the necessary modernisation. As the Foundation report suggests (Masson, 2003), this situation long persisted in many schools before more rapid industrial restructuring brought about an abrupt change, putting a stop to young people going straight into work at the end of technical or vocational secondary education. At the same time, the training establishments located close to enterprises that have benefited from DFI have been able to modernise thanks to the knock-on effect from this investment.

Today, the slowdown in growth and slower expansion of employment in services are sounding a warning bell for vocational education and training systems: they need to

([44]) Funding is appreciably lower than in the countries of the European Union with a comparable or lower rate of unemployment. Hungary and Slovenia, for example, spend half as much as Portugal, Lithuania and Estonia 5 times less than Greece, Slovakia and Poland over 10 times less than Spain, and the Czech Republic 15 to 20 times less than Germany or France on labour market training as a percentage of GDP. At the individual level, expenditure per unemployed person ranges from a ratio of 1 in Poland and Slovakia to 3 in Estonia, 5 in Lithuania and the Czech Republic, 15 in Malta, 23 in Slovenia and 25 in Hungary, compared with 26 in Spain, 38 in Greece and 73 in Portugal.

change faster and to play a far more active, even pro-active, role in developing all aspects of human capital, especially by developing skills within enterprises and in the labour market.

Education and training policy

Construction of a legislative framework in stages

At first there were several driving forces behind change: (1) the desire of governments to adapt economic and social systems to the constraints of the market economy and the rule of law, and to prepare as fast as possible for European integration; (2) a huge appetite for education among large sections of the population, set free by the collapse of the previous system in which educational activities did not lead to social advancement or better pay, which naturally had an effect on the various branches of general education and still more on higher education; (3) European assistance, particularly through the Phare programme, which focused until 1998 on requests from countries before turning towards the priorities of accession.

In general, there were three successive stages to reform, marked principally by legislative action, the pace of which varied from country to country. At first, priority was given to 'de-ideologising' subject-matter, to university autonomy and to greater freedom to teach in the private and Church sector. With the obvious exception of Cyprus and Malta, but also of Hungary and Slovenia, where economic reform had begun in the 1980s and some education and training initiatives had already been launched, the new leaders of Central and Eastern European countries did not have a clear idea about the reforms to be undertaken in the area of education and training, apart from the need for a vigorous expansion of higher education. However, in the case of vocational education and training, they needed to respond to the collapse of the organic links (particularly in terms of funding) between schools and enterprises. In the event, vocational education became more school-based and more theoretical (Nielsen, 2003).

The second stage, which began any time between 1993 in Hungary and 2001 in Poland, covered laws on initial vocational education in the formal system, in the context of overall restructuring of secondary education aimed in general at prolonging the period of study, postponing the age of specialisation, opening up pathways, providing bridges into higher education for more people, and implementing new curricula suited to the needs of the market and society. These reforms also helped to diversify higher education courses, including the development of vocational higher education provision. On the basis of the growing demand for education, the reforms also led to significant changes in the balance between types of upper secondary education: in most countries, technical and vocational paths as a whole lost students to general courses, and within the technical and vocational block, so-called technical or secondary vocational courses ([45]) expanded rapidly, to the detriment of so-called vocational or apprenticeship courses, in which numbers fell considerably (Czesana, 2004 and Svetlik, 2004).

Reforms in adult continuing education and training were the subject of the third stage aimed chiefly at regulating already widely diversified training provision, and at introducing national systems of qualifications, suitable accreditation and certification mechanisms, and the first steps towards validating non-formal and informal learning. This stage began in 1996 in Slovenia, and is still in its infancy. It now forms part of wider reforms aimed at lifelong learning.

The problems in implementing systemic reform of vocational education and training

The first thing to note is the inadequate analysis of the needs of the labour market and of future skills requirements. This may be explained in part by the as yet unstable nature of changes in employment in most countries. Nonetheless, investment in research into vocational education and training, having been cut back considerably at the beginning of transition (Nielsen, 2003) is still relatively inadequate, analysis seldom going beyond the examination of employment office statistics.

It is against this background that the reform of vocational education and training curricula has been undertaken in all countries as a major priority in order to respond to new training needs. It has generally been underpinned by assistance from the European Union under the Phare programme

([45]) Leading to a qualification at CITE Level 3 and to a certificate of completion of secondary education granting access to higher education.

and by the initiatives of a number of loan agencies offering their expertise to institutions that have become more independent. The result has been a wide variety of approaches which each country is now trying to systematise, largely by introducing national benchmarks which leave a degree of autonomy at the local level.

This policy is under way, but is progressing slowly. In Slovenia, where the reforms have been among the most far-reaching, it was believed in 2002 that these new curricula had only been adopted in 30 % of cases. Their general adoption suffers from lack of a support policy, absence of appropriate institutional back-up and insufficient relevant resources in terms of teacher training, teaching methods and technical facilities, and pilot schools have often remained isolated. The proliferation of new curricula and their coexistence with older versions, the expansion of new training paths in some schools, also in parallel with former operational structures that are still functioning in other schools, and the growing number of public and private training centres, have created a situation in which transparency of qualifications is becoming an urgent requirement, both for the groups receiving training and for employers, and is a major concern for governments. Awareness of this problem is obstructed, however, by poor mobility among workers.

This policy was at first confined to approaches governed by the needs of the formal education system, but it now tends to be based on the implementation of national systems of vocational qualifications in order to respond to the need to regulate the development of vocational training in the non-formal sector, and in particular labour market training. The work required is very complex, however, and some countries are experiencing difficulties in mobilising the necessary resources. Furthermore, it suffers from the difficulties of interministerial coordination and the weaknesses of the social partnership. Nonetheless it is increasingly necessary in countries seeking to implement recognition and validation of non-formal and informal vocational skills, particularly in order to deal with the problems of training the adult population and the long-term unemployed. Most countries have therefore adopted this approach, but have usually kept it separate from formal learning and learning on the job ([46]). The benchmarks for certification remain those of the formal education system, and it is to be feared that before long this will not be sufficient to deal with the huge problems of social exclusion among disadvantaged sections of the population such as the long-term unemployed and ethnic minorities, or to contribute to the development of skills and qualifications in the workplace.

The quality of training courses has become a major concern of the competent ministries. The trend is to put in place procedures for registration and accreditation with national commissions under the control of the Ministry of Education. These procedures are aimed both at the centres themselves and at the training that they provide. They were first introduced to regulate private higher education establishments, but are now being developed for all establishments offering labour market training. However, the control operations involved are often perceived as nit-picking and bureaucratic. Advice and guidance are usually provided within the school system, but with a bias towards educational psychology, which scarcely helps to develop vocational training. These functions are also exercised within employment offices, but their activities are too restricted, given the needs, because of inadequate resources, especially training for the relevant staff. In addition, cooperation between the two systems is far from optimal and suffers from inadequate involvement of the social partners.

Governance and partnership

In the late 1990s, as part of preparations for the Structural Funds policy, the largest countries embarked on a process of decentralising their education systems, and sometimes also their employment services. In countries where the process is furthest advanced (Poland and the Czech Republic) or is proceeding gradually (Hungary and Slovakia), the situation is frequently complex: for historical reasons, the level chosen to exercise these responsibilities is most often the district (or county), while preparation for the Structural Funds subsequently required the establishment of regional bodies at a higher level. All this has led to some fragmentation of responsibilities and to problems of coordination both between the districts themselves, and with the regional 'programme' level and central government. There are also difficulties in coordinating the employ-

([46]) According to Haralabos Fragoulis, only Estonia has begun to introduce an integrated system covering all forms of learning, while Romania and Slovenia are developing two parallel systems, Hungary has concentrated on the formal system and the other countries are at the experimental stage. (International Seminar on the Validation of Non-formal and Informal Learning, Vilnius 2004).

ment and education services because the authorities responsible for them have not always been set up at the same level.

Overall, in initial training, responsibility for the core content of courses, registration and accreditation of training establishments, and the budget have remained at central level. In the countries which have decentralised, responsibility for planning, enrolment and allocation of resources has been conferred on elected local authorities. Lastly, in almost all countries schools themselves have acquired responsibility for the recruitment of teachers and the possibility of developing specific courses that complement the curricula laid down centrally. The involvement of enterprises in these matters remains marginal.

On the other hand, continuing training is largely governed by the market, tempered by accreditation and quality assurance mechanisms at the national level, and by the role played by the decentralised structures of the public employment service in respect of labour market training.

Because this has all been happening so recently, it is of course too early to form a judgment on how well these decentralised structures are working. The arrangements have already increased awareness and brought in new players at the local and regional level, which should encourage a better match between resources and regional needs, and should eventually make it possible to take over from or to complement central government's responsibility for funding education and training, particularly technical equipment in vocational upper secondary schools. But we may also ask ourselves whether the systems established will be able to eliminate, rather than exacerbate, the regional disparities that are already very marked.

Furthermore, coordination between ministries remains inadequate and problematic in the field of education and training. It should be remembered that under the socialist system, ministries had no more than management powers, and that these powers were split between a series of 'technical' ministries which 'looked after' a given sector of the economy and the education and training matters relating to that sector, in particular the relevant schools and colleges. This situation was quickly resolved in most countries, but it lasted until the late 1990s in a few. It has certainly contributed to the difficulties found today, especially the rivalry frequently observed between the Ministry of Education and the Ministry of Labour over questions relating to continuing education and training, the competition between public training networks, and the difficulty of working out global strategies for the development of lifelong learning.

In all countries the involvement of the social partners has been regarded as a key factor in changing and expanding vocational education and training systems. The legislation mentioned above has, for example, given them a role in defining the main lines of training policy, and in the practical implementation of qualification and certification systems.

In reality, their involvement is far from having much effect on policy development. It must of course be realised that the need to play a real role in the field of economic and social policy constituted a genuine 'cultural revolution' for the trade unions, which had been used as Party tools until 1989. The same applies to entrepreneurs, who took a long time to make use of Chambers of Commerce in order to pool their views, and are now learning about their collective autonomous responsibility through very fragmented occupational associations. This being the case, the State tends to exercise a dominant role, not engaging in genuine consultation, and the representatives of the unions often complain that their points of view are not taken into consideration.

However, the involvement of the social partners, particularly employers, is more effective in the occupational commissions entrusted with the task of preparing the new benchmarks, and in the examination boards for vocational training diplomas. In schools, the involvement of the social partners also depends on the willingness of the heads, the teachers and employers. It is clear that the organic links that applied in the former system have not yet been replaced by the new cooperation procedures found in most countries of the European Union. This lack of cooperation has a particularly detrimental affect on the quality and relevance of the education and training provided in vocational education establishments.

The issue of resources

In addition to the remark made above about the limited public and private funding for education, particularly adult education, it should be said that resources do not appear to be spent in the most effective way. Educational institutions are small, and they are far from evenly distributed throughout the country, especially adult education establishments; similarly, there is often a high proportion of administrators among education staff. For this reason, improvement schemes have been introduced in most countries, encouraged by the demographic downturn but sometimes held back by decentralisation, although this may eventually be a help thanks to more refined analysis of local development needs.

In most countries, particularly Romania and Bulgaria, the technical equipment situation is critical in many establishments providing technical and vocational education (especially industrial courses). Despite the allocation of significant resources to pilot schools selected to try out the new curricula under the Phare programme or other international cooperation schemes, these establishments remain isolated; the spread of good practice has been hampered by lack of resources. Together with the lack of cooperation between schools and enterprises, this has compromised the quality of the new curricula and devalued yet further the teaching that was widely seen as being closely linked with the former economic system (Svetlik, 2004). In order to mitigate this lack of resources, some countries have encouraged schools to sell products made in their workshops. Other countries have introduced an obligation on schools - which have become 'contributing' establishments - to transfer the proceeds from these sales to the State. However, these procedures carry the risk of undermining the quality of teaching even further, of demotivating schools, and in particular of discouraging them from entering the adult education market. At the same time, some countries are attempting to re-establish modernised apprenticeships along the lines of the dual system, but are coming up against the reluctance of enterprises to play their part in the necessary financial investment.

As for information and communication technologies (ICT), these are spreading more rapidly in the education system, but at levels that are still lower than in the EU15. These developments usually result from ministerial initiatives, and sometimes from encouragement given by government, as in Estonia, or by other specialist ICT authorities (Ministries of Telecommunications or Information Technology) and rely on cooperation with the private sector. But suitable software has yet to be developed, and teachers trained, although most countries are addressing these tasks within their limited resources. Resistance to change also has to be overcome among many teachers and senior administrators. Internet access is also expanding rapidly, but is sometimes hindered by the poor quality of the telecommunication infrastructure.

The issue of teachers

Teachers have generally lost out as a result of the changes that have taken place since 1990, as have the resources devoted to their training. With the exception of Cyprus, Malta and Turkey, and Hungary and Slovenia, where they have recently been upgraded, teachers' salaries are well below those found within the Union and are frequently below national averages. The profession is currently largely dominated by women, to a degree that is generally greater than the European average. There would not appear to be a danger of a shortage of teachers in the immediate future, even though it is an ageing profession as in the European Union. Training does pose a problem, however, particularly in technical and vocational education, where a large proportion of 'technical' teachers is regarded as unqualified. The others have received university training, but it would appear that these are still too frequently offering 'academic' teaching that is out of touch with developments in the economy and is unsuited to preparation for new learner-centred teaching methods using new technologies. Furthermore, continuing training is still poorly developed, for want of resources and specialised support institutions.

Problems in preparing lifelong learning strategies

Acceding and candidate countries are now completely integrated into European education and training policies. They played a full part, for example, in the process of consultation on the Memorandum on Lifelong Learning in 2001 and were each required to produce a report on progress made in this field in 2003 ([47]). These progress reports are

([47]) Following the Council Resolution adopted in 2002 on lifelong education and training.

structured according to the strategic priorities laid down in the Commission Communication.

The results are illuminating. Two years after the end of the consultation on the EC Memorandum on Lifelong Learning in 2001, the situation had not radically changed in the acceding and candidate countries. However, there are moves afoot. A number of major steps have been taken, and national strategies are being drawn up in most countries. But the actions taken reflect the persistent imbalance between the formal and non-formal/informal elements of lifelong learning systems, and are too recent to permit evaluation.

There is still insufficient coordination between ministries. The social partners are still not involved in defining and implementing strategies, despite the establishment of numerous consultative committees and tripartite commissions.

Activities are particularly lively in the field of information and communication technologies (ICT), especially through public-private partnerships, and the expansion of local and regional learning centres designed to bring learning closer to people's homes. A large number of initiatives, for example, aim to improve access to education in rural areas and for groups that are disadvantaged or at risk, and to expand 'second chance education' for young people who left school with no qualifications.

On the other hand, there are few signs of support for learning in the workplace through appropriate incentive schemes or initiatives to encourage private investment in training. It is rare to see the appearance of new funding mechanisms, and there are very few examples of funds being retargeted towards these priorities. Greater attention is being given to teacher training, but the major questions associated with improving the standing of the teaching profession are only being addressed in a small number of countries. Lastly, the quality of vocational learning and training remains a major worry, especially in the three candidate countries, even though many initiatives launched with European assistance are aimed at providing better equipment, improving infrastructures and introducing evaluation and quality assurance mechanisms.

This confirms the analyses of the previous chapters. There is still a huge imbalance between the importance that the education system attaches to general and higher education on the one hand, and to vocational education and training on the other, and also between the initiatives taken in the formal education system on the one hand and the development of skills in the workplace and among sections of the population at risk of exclusion on the other. These imbalances are likely to increase further because the social partners find it difficult to intervene in these questions and enterprises are still unable to take the necessary action.

There are also question marks over the limits to the strategies drawn up because action remains compartmentalised between education and training, while primary responsibility lies with ministries of education. It would no doubt be good to find ways of working together more closely, and even to assign strategic responsibility to the prime ministerial level, in close association with the other elements of the Lisbon Strategies, in particular with the components concerned with employment, research and competitiveness.

Conclusions

The situation in the acceding and candidate countries today is very mixed to judge by the criteria laid down for assessing progress towards the Lisbon objectives for education and training. Continued reform effort and heavy investment in human capital have enabled some countries to achieve encouraging results in some fields. The sharp increase in the number of students entering higher education has helped the expansion of employment in services and the rapid increase in direct foreign investment. But overall, education and training systems have largely been reactive, and are still ill-equipped to play an active role in future changes in the economy and employment. Vocational education and training, which depended heavily on the economic structures of the socialist system and which are the victims of the present-day rejection of that system, have remained the poor relations in the changes that have occurred. In all countries, there is still a considerable lack of adult education and training, which is contributing to inequality and seriously affecting social cohesion.

Economic growth is now at a high level in most countries, at a time when ten of them, however, recently joined the European Union on 1 May 2004. There are a number of indications that the pace of change in education and training systems needs to be appreciably faster, and in particular that considerable effort needs to be put into retraining adults in enterprises and for the labour market. Current initiatives being carried out, and the strategies drawn up to meet the Lisbon objectives and to prepare for the knowledge-based economy and society, are not up to the task. They remain too focused on the supply side and the pre-eminence of the formal education system. Attention should be given to all the messages and priorities contained in the Communication on lifelong education and training, with particular regard to the systemic aspects of this framework for action and to the overriding need for partnership, to the priority to be accorded to the individual, to non-formal and informal learning, to the recognition of skills acquired through experience, and to mechanisms for guidance and advice.

Against this background, the objectives laid down for education and training systems cannot be achieved solely through policies centred on educational criteria. The relationship between these phenomena, employment issues and economic structures needs to be appreciated, and integrated policies need to be rigorously adopted, closely linking the development of human capital with measures to develop SMEs, convert industrial enterprises and tackle social exclusion. This is undoubtedly the direction in which the European Union should direct its structural policy interventions in the countries concerned, particularly using the European Social Fund.

Annex

Typology of candidate countries according to education and training issues ([48])

(a) **Hungary and Slovenia**, where reform is furthest advanced, the level of expenditure on training for the labour market is closest to the European average, and enrolment rates in higher education are highest, in a context in which technical and vocational education still has a major place in secondary education. However, public spending on education and the level of continuing training for employees are still below the EU average in Hungary, although higher in Slovenia. Furthermore, these two countries have been able to upgrade salaries and training for teachers substantially, and there have been significant initiatives in the area of lifelong learning in these countries.

(b) **The three Baltic States, Cyprus and Malta**, which have in common the fact that their level of investment in education ([49]) is higher than the European average, in a context in which technical and vocational education has only a limited place in secondary education. Among them, reform is furthest advanced in Cyprus, Malta and Estonia; rates of enrolment in higher education have risen most in the Baltic States, as did student levels in mathematics and science between 1995 and 1999; continuing education and training are better developed than the average in these candidate countries, particularly in Cyprus, Latvia and Lithuania, and there are numerous initiatives in the field of lifelong learning.

(c) The **Czech Republic and Slovakia**, which have in common the fact that the proportions of the population with at least a CITE level 3 qualification are among the highest (the PISA results are also the best in the Czech Republic) in a context in which technical and vocational education is still very highly developed within secondary education. It is also in the Czech Republic that employees' participation in continuing training is highest. However, systemic reform of education and training has fallen behind, perhaps because the maintenance of industrial activity and the high level of direct foreign investment, especially in the Czech Republic, have had the effect of preserving the vocational education and training system. The rate of enrolment in higher education has risen only a little, for example. Furthermore, public spending on education and active labour market measures remains limited, although Slovakia has recently made a considerable effort to catch up in the area of training for the unemployed.

(d) **Poland**, where public investment in education is close to the European average and the rate of growth in enrolment in higher education has been one of the highest; many reforms have been introduced, but it has taken a long time for the principal players to reach a consensus. This has led to some delay in reform, which is hampered by a dire shortage of resources from the State and

([48]) This table is taken from the report 'Thirteen years of cooperation and reforms in vocational education and training in the acceding and candidate countries. Addendum'.

([49]) Measured in % of GDP.

enterprises in continuing education and training, particularly against the background of a serious economic crisis and extremely high unemployment. Nonetheless, there are numerous initiatives in the area of lifelong learning, although the resources available for training the unemployed have reached extremely low levels.

(e) **Romania and Bulgaria**, where results are lowest in almost all fields. The implementation of reform is seriously handicapped by lack of resources. Public spending on education is the lowest, as are rates of participation in continuing training. School dropout rates are very high. Enrolment in higher education has increased appreciably, but less than in most of the candidate countries. Despite ambitious reforms, major structural problems continue to make it hard to modernise systems and to adapt them to the needs of the labour market and society.

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Learning competition and business restructuring in the enlarging EU

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The growing importance of learning as the key competition criterion obliges companies to undertake holistic and integrated restructuring to maintain or improve their market position. Such a renewal approach includes a focus on innovation as a strategic goal, intelligent use of modern ICT, development of decentralised organisation forms, establishment of a trust-based business culture and improvement of human resources. Empirical findings indicate that companies in EU Member States and candidate countries are rather slow in adapting their business systems to the new competition logic. Companies seldom define innovativeness as their core goal and they focus more on technical than on organisational restructuring. Companies in the Member States seem more sensitive concerning the value of their workforce than in the candidate countries. But improving human resources cannot increase the learning capacity of companies significantly if business structures do not become more reflexive.

Introduction

Over the last 30 years, a great challenge to companies has been how modern ICT, organisational structures, core business goals and strategies and human resources should be combined in the emerging new economy to keep or obtain global competitiveness. There is wide agreement that, together with the globalisation of the economy, the rules of the competition game have changed significantly. Yet scholars have been struggling to capture the new dimension of competitiveness in the globalising economy. Only recently have they identified learning as the '... deepest and most general way to describe the logic of the most advanced forms of economic competition' (Storper, 1997, p. 31). The fact that, in a globalising economy, innovation is becoming the dominant competition criterion puts high demands on the learning capability of individuals and organisations. Those who are faster and better in generating new knowledge and putting it into practice can sustain and improve their competitiveness, as they can derive the first mover advantage.

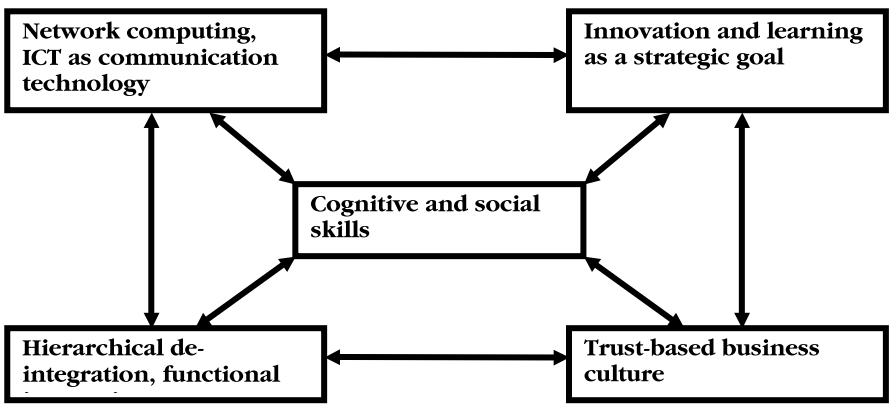
Learning is associated with heightened reflexivity. Reflexive learning can be defined as 'the possibility for groups of actors (...) to shape the course of economic evolution' (Storper, 1997, p. 28). Self-reflexivity characterises the capability of actors to deliberately imagine and act on different strategies (Sabel, 1997). Self-reflexivity, however, is not possible without structural reflexivity. Lash relates structural reflexivity to an organisation form, '... where the rules and resources (...) of the shop floor, no longer controlling workers, become the object of reflection for agency. That is agents can reformulate and use such rules and resources in a variety of combinations in order chronically to innovate' (1994, p. 19). The aim of this article is to identify and understand changes in the business model, caused by the emerging new competition game.

Empirical findings

In the following I analyse to what extent companies in Europe have transformed their business models into a learning organisations, including organisational, technical, cultural, strategic and skill dimensions. European firms, in spite of investing heavily in R&D, are said to lag behind in terms of productivity and innovation because they are slow in adapting to intelligent ICT use practices, new organisation principles and changing skill demands (Womack et al., 1990; Weinstein, 1997). I use empirical findings from case studies and firm surveys conducted in the EU Member States ([1]) and in the candidate countries ([2]) ([3]). Some general trends can be identified in company restructuring practices along with differences. The main finding is that only a minority of companies have undertaken a holistic and integrated restructuring process aimed at improving their learning and innovation capacity. More often, companies have introduced isolated renewal steps focusing on only a single di-

([1]) The TSER project Information society, work and the generation of new forms of social exclusion. The following territories were involved in the research project: Flanders, the Republic of Ireland, Lazio (Italy), Lower Austria, Portugal, the Stuttgart Region (Germany), the Tampere Region (Finland) and West-London. A company survey was conducted in 1999 that contained 800 companies, 100 per territory. The regional/national samples were structured according to company size and industry. The companies were ap-

Business restructuring processes in a knowledge-based economy **Figure 1**



mension of restructuring. Companies in the candidate countries seem to be even less involved in holistic restructuring practices than companies in the member countries.

Research in the Member States

Companies that are faced with increasing learning competition to stay in business have to renew their business model by holistic and integrative restructuring. Such an approach needs to incorporate a cluster of complementary changes including a focus on innovation as a new strategic goal, the introduction and intelligent use of modern ICT, the development of new decentralised and flexible organisation forms, and establishing a trust-based organisation culture. At the same time, workers have to acquire new skills and competences allowing them to participate in learning and innovation. This also has an impact on companies' further training activities. All the elements of the change process are closely linked and mutually influence each other, as can be seen in Figure 1.

Empirical findings seem to disprove the argument that companies are forced to embody a philosophy of continuous improvement and innovation. Innovativeness is actually considered to be the last, not the most important, strategic goal by companies. A great majority of companies mention quality as their key achieving criterion and also productivity, flexibility and delivery time seem to be more important as strategic goals than innovativeness. Of course, achieving high quality often requires continuous, incremental innovations.

Learning is associated with a new organisation logic, turning upside down the principles of the traditional Fordist organisation model, which is marked particularly by hierarchical deintegration leading to flat hierarchies and functional integration as manifested in group work and team structures. The new organisation logic replaces market-based relationships by more stable network-based forms of cooperation (Castells, 2000). The empirical findings suggest, however, that companies are much more stable than is assumed in management literature. A greater number of companies did not engage in any kind of organisational change and the ones that did introduced, in most cases, only a few isolated organisational innovations. It seems that not many companies have prepared themselves for the logic of the new competition game based on learning by applying a holistic approach to organisational restructuring.

Group work and project teams, subcontracting or geographical relocation, strategic alliances, downsizing or splitting the company, and profit or cost centres were introduced slightly more than flatter hierarchies or subcontracting networks. But all those organisational innovations were introduced by fewer than half of the companies. In general, companies focused more on internal than on external restructuring. In about 50 % of all change activities, modern ICT was considered to be playing an important role as the driving force of organisational restructuring.

Organisational learning can be supported effectively by a new computing model, which focuses on integration as well as knowledge exchange (Tapscott, 1995). Ward et al., (1990, see also Sampler, 1997, p. 19) argue that together with growing technical potential of modern ICT, a shift has taken place from data-processing (administrative, centralised mainframe computing) and management information systems (MIS) to individual and office-support on PCs and office systems, and then to electronic data interchange (EDI) and inter-organisational systems, organisation platforms, and network computing.

Our empirical findings suggest that companies use modern ICT quite extensively and they increasingly engage in the paradigm shift towards networked technology. About half of all companies are using ICT in an advanced way, while only about one-third of all companies can be characterised as technology laggers ([4]). There clearly is a trend from centralised mainframe computing and

proached either by telephone, in written form, or in personnel interviews, using a standardised questionnaire. In addition, 10 case studies were conducted in each territory. The response rate varied from territory to territory from about 25 % to over 50 %. For more information, see the final report of the project (2002) written by G. Schienstock.

([2]) Here I refer to several publications that are linked to the research project Human resources in the context of regional development, launched by the European Training Foundation in 2000 (Masson 2002, and various national reports).

([3]) As research undertaken in the Member States and candidate countries was conducted in different projects, the results are not fully comparable.

([4]) The typology used is based on cluster analysis. The first cluster had a negative score on the three ICT variables used in the analysis, namely the use of ICT in office tasks, production, and communication. This cluster is called 'low use of ICT'. The second cluster had a negative score in communication, but a positive one in office tasks and in production, if applicable; it is labelled 'traditional use of ICT'. The third cluster, named 'advanced use of ICT', had high scores on all three ICT variables.

isolated computer systems towards network applications, often with each unit being connected to a central computer. But network technology is less used by companies to exchange data with the outside world.

The survey shows that companies are using software support for administrative processes quite extensively. However, while the overwhelming majority of companies have automated their traditional administrative tasks to a great extent, customer-related functions are less frequently supported by software use. Furthermore, most companies have automated most of their administrative processes, indicating the use of an integrated approach. Automation of manufacturing processes is less extensive ([5]); it can be found more in preparatory work phases such as production planning and production design than in the remaining work processes including the actual treatment of products. Furthermore, nearly all companies have the technology to engage in electronic communication. Access to the Internet and the use of the e-mail are both quite common.

Our conclusion that companies increasingly engage in the paradigm shift towards networked technology is also supported by the fact that modern ICT is used more as communication and coordination technology and as a tool to improve quality and to speed up decision-making than as automation and control technology.

Flexible ICT-based organisation forms only represent the pipeline and storage system for the exchange of information and knowledge; they do not affect this exchange. Firms have to direct and align perception, understanding and evaluation of their employees through a strong business culture to stimulate innovation and learning as a new strategic aim. In an organisational culture based on distrust, knowledge will not be shared and distributed and interactive learning and collective innovation processes will not take place, even if the firm has the most advanced ICT applied (Davenport and Prusak, 2000, p. 18). Worker participation in ICT implementation and organisational restructuring can be seen as an important indicator of a trust-based organisation culture. Two-thirds of all companies practiced such user involvement, which means that a trust-based business culture was widespread. Caution is necessary, however, because user participation is just one dimension of trust-based work relationships. Nevertheless, the empirical findings indicate that users became much more involved in restructuring than representatives of unions.

Although modern ICT allows increasing codification of knowledge, a major part of companies' knowledge, particularly when it comes to innovation processes, remains tacit and embedded in the competences, capabilities and experiences of the workforce. Strong human capital is crucial to the capacity of companies to learn and continuously innovate. The lack of skilled and experienced personnel is often seen as a factor seriously limiting collective learning and innovation (Stahl et al., 1993, p. 26). There is a considerable demand for adapting human capital as learning and innovation becomes a new challenge; workers can no longer rely on their traditional work-related skills. Instead they have to acquire new skills and competences such as cognitive skills, social skills or learning-to-learn competences (Oates, 1998; Sellin, 2002).

There seems to be a great demand for a variety of different skills, such as information processing, social competences, organisational and management skills, creativity and responsibility, while professional skills, practical knowledge and multi-skilling were mentioned less often. However, the majority of companies indicated a demand for all skill dimensions. Companies valued information skills as highly important but the capacity to work on and analyse a huge amount of data (cognitive skills) seems more important than the skills to work with specific technologies (digital skills). In general, the empirical findings show that there was more demand for skills referred to as soft skills, such as social and organisational skills and work virtues, than for professional and work-process-related skills.

Increasing demand for new knowledge, skills and competences associated with the introduction of new products, the widespread use of modern ICT and organisational restructuring causes companies to focus more on further training. But, in most cases, companies only offer short-term training and many companies expect their workers to take care of upgrading their skills and competences themselves. Companies are prepared to give some support but workers have to contribute significantly by sharing the financial and time burdens.

([5]) Here I only refer to those companies for which the respective tasks are applicable.

Dimensions of different organisation models **Table 1**

Dimension	Low-tech Fordist	High-tech Fordist	Low-tech network	High-tech network
Use of ICT	low or traditional use of ICT	advanced use of ICT	low or traditional use of ICT	advanced use of ICT
Function of ICT	control	automation	communication, organisation	communication, organisation
Internal organisational restructuring	little organisational restructuring	little organisational restructuring	group work	group work and flat hierarchies
External restructuring	less intensive	less intensive	intensive	intensive
Main goals	quality, productivity, delivery time	quality	quality, innovation	quality, innovation
Market position	regional company	major international player	national company	national company, major international player
Culture	distrust (low rate of user involvement)	trust (high rate of user involvement)	trust (high rate of user involvement)	trust (very high rate of user involvement).
Skill demands	slightly more work-related skills	communication skills	slightly more work-related skills	communication skills

Soft skills become increasingly important but they are difficult to learn in further training courses; companies are less prepared to give financial support for the acquisition of those kinds of skills and competences. Instead more attention is given to social skills in the personnel selection process. While the lack of ICT knowledge is hardly a reason to reject somebody, missing social skills are more likely to disqualify a candidate.

On the basis of the empirical findings, a distinction can be made between the following four techno-organisational systems: low-tech Fordism, high-tech Fordism, low-tech network organisation and high-tech network organisation. Companies that belonged to the low-tech Fordist type had installed little modern ICT or only less advanced systems and they had not undertaken major steps of organisational restructuring. High-tech Fordism was associated with intensive use of ICT mainly to improve control potential, but modern ICT was also introduced to make rigid organisational structures more flexible. The low-tech network form was characterised by intensive organisational restructuring, unsupported by an intensive use of advanced ICT systems. The high-tech network type combined advanced technology with at least partial organisational restructuring strategies ([6]).

Research in the candidate countries

I have argued that a highly skilled workforce must be seen as companies' most important intangible asset because it has the capacity to enhance or to support innovation and learning, the dominant competition criterion in the emerging new economy. However, empirical findings, despite the variation in regions, seem to indicate that companies in the candidate countries in general, and SMEs in particular, had not been aware of the key role of knowledge, skills and competences in the emerging new economy. Only between 40 % and 12 % of companies in a particular region mentioned their workforce as a major strength of their organisation (Masson, 2002, p. 1).

There may be different reasons for this; either companies did not assign significant value to the role of their workforce as there was less demand for new skills and competences, or their workforce is not equipped with the needed skills and competences. In the first case, it can be assumed that companies had not adapted to the new learning and innovation competition, and they could therefore rely on a less educated workforce. But it is also possible that companies were less satisfied with the skill level of their workforce and saw the low qualification of their workers as a hindrance in the transformation phase.

The latter argument is supported by the fact that companies experiencing an increase in their market share and strong productivity growth were concerned about the skills and competences of their workforce. For highly dynamic and innovative companies, skill shortage became a major hindrance factor for further growth. They seemed to believe that scope existed to improve the capabilities and contribution of their current workforce. In other cases, companies did not see their workforce as a competitive advantage because they lacked an innovation-oriented business strategy. Focusing on a

([6]) Companies were also subsumed under the category of high-tech network organisation when they had only partially restructured either the vertical or the horizontal dimension of cooperation.

traditional cost-based production policy and traditional work structures, companies were probably not aware of the huge potential a highly qualified workforce can offer for increasing competitiveness through innovation activities.

Furthermore, the empirical findings suggest that SMEs generally failed to apply a coherent renewal approach which would have integrated the development of innovation strategies and the technological infrastructure, the institutionalisation of new organisation forms and the improvement of employees' skills and competences. In many cases, companies that developed their human resources did so without combining this with an overall approach towards improving competitiveness in a globalising economy that also introduces major techno-organisational changes. The missing context sensitivity, however, may have reduced the effectiveness of human resources development intervention strategies, as workers could not use their new skills and competences effectively.

However, techno-organisational renewal strategies make little progress if they are not combined with human resource development strategies. In general, companies had some experience in assessing the skills of their workforce and identifying skill demands; they felt less secure, however, in evaluating future skill needs. But companies did not seem to examine the skills and competences of their workforce in relation to the development of their innovation capacity and their overall competitiveness.

There are further indications that companies in the candidate countries did not value their workforce as highly as those in the member countries, and that they felt less responsible for obtaining and maintaining the qualification of their workforce. The Eurostat CVTS2 survey conducted in 1999 reveals a disparity in continuing vocational training activities initiated by companies between the candidate countries and the Member States. Only an average of 40 % of all companies in the candidate countries had organised training, well below the EU average of 72 %. There were, however, large national differences: for example, the Czech Republic and Estonia were close to the EU average, while Poland and Hungary with less than 40 % and Romania with about 10 % were far below the EU average (Masson, 2002). That companies in the candidate countries felt less responsible for qualifying their workforce is also indicated by their limited attempts at overcoming the problem of filling vacancies by training their workforce more extensively.

In general, training investment concentrated on more highly-skilled workers and on those occupational groups with a relatively high stock of initial skills, contributing to the conservation of functional hierarchies. In many cases, the aim of additional training was very limited; further training was limited to imparting the knowledge to work with new technical equipment. The fact that digital competences played a lesser role in the candidate countries than in the EU member states indicates a low penetration of work processes by modern ICT and more traditional use of the technology. Furthermore, management training remains an area of relative under-investment, which shows that companies in the candidate countries underestimated the importance of new organisation and management practices for improving their global competitiveness.

Human resources development focused prominently on job interchange, stressing the importance of learning by doing, and on multi-skilling. This priority clearly indicates that the intention of further training was primarily to increase productivity and flexibility but not so much to empower people to contribute substantially to techno-organisational renewal processes necessary to enhance companies' innovation capability. From these findings it can be concluded that human resources development strategies were not co-ordinated with business development strategies, if the latter existed at all. If companies had aimed at strengthening their position in global innovation competition, they would have had to focus on the improvement of cognitive, social and management skills, for example.

Firm surveys conducted in several regions of the candidate countries give a more detailed overview of shortages of various skills and competences (Polish National Observatory, 2001; Lithuania National Observatory, 2001; Estonian National Observatory, 2001; Czech National Observatory, 2001; Hungarian National Observatory, 2001) ([7]). Table 2 shows that regions in the candidate countries differ significantly in demand for skills and competences.

([7]) There are several aspects that make comparison between the countries difficult. First, the surveys often use different categories of skills and competences. Second, while in Poland and Estonia the survey covers only a specific region, the Lithuanian survey covers the whole country. Third, industrial differences in the regions are significant, which has an impact on the demand for particular skills.

Skills demands in companies in various regions in candidate countries **Table 2**

Region	South Estonia	Lubelskie voivodship (Poland)	Lithuania	North West Bohemia (Czech Republic)	South Great Plain Region (Hungary)**
Professional skills	15 % (main skills)	10 % (work experience)	21 % (work experience)		8 %* technical/ professional skills
Technical skills	40 %	–	–	–	13 %
Communication skills	20 %	4 %	14 %	12 %	8 %*
Digital skills (computer skills)	13 %	6 %		7 %	
Management and supervisory competences	1 %	9 % (commercial and business awareness)	10 % (ability to work independently)	–	–
International skills (foreign languages)	20 %	–	–	12 %	–
Creativity, initiative, originality	21 %	6 %	–	–	8 %*
Reliability, motivation, honesty	–	7 %	9 % (honesty)	–	–
Social skills: teamwork ability	19 %	3 %	7 %	–	–
Social skills: customer serving skills	22 %	–	–	–	–
Ability to learn	–	4 %	–	–	–
Problem-solving ability	–	16 %	9 %	–	–

The percentages indicate how many of all companies in the sample have mentioned a demand for a specific type of skills or competences.

* only skilled workers.

** The figures are not reliable due to a small number of responses

Conclusion

It is important to put the empirical findings in both the Member States and the candidate countries into perspective. They represent a snapshot in a continuing transformation process. Currently, companies are experimenting with new techno-organisational solutions to find the most adequate production model to cope with the new competition logic of a globalising economy. The initial situation in both groups of countries is naturally different and the transformation processes in the candidate countries are much more complex (Kaukonen et al., 2000).

Some general trends can be identified. The empirical findings indicate low levels of rapid and widespread adaptation to the new techno-organisational restructuring logic. Companies in the Member States seldom apply a holistic and integrated restructuring strategy, and what is referred to as a learning organisation seems to be far from realisation. This could be because companies seldom define innovation as their strategic aim. They often produce standardised goods for regional demand only, which means that they are rarely confronted with the new competition scenario. In general, companies focus more on the technical than on the organisational dimension of modernisation strategies. But companies in the member countries seem to be quite sensitive concerning the value of their workforce. Upgrading of skills and competences is increasingly defined as the duty of the workers themselves with some support by companies. Improving human resources cannot increase the learning and innovation capacity of companies substantially if business structures do not become more reflexive.

Companies in the candidate countries are even less prepared to pursue coherent renewal which would eventually integrate the development of innovation strategies and the technological infrastructure, new organisation forms and improved employee skills and competences. They are slow in introducing modern ICT and making use of its potential for flexibility. Where introduced, modern ICT seems to be used more often as automation and control than as communication technology. In addition, companies in the candidate countries seem not to value their workforce as highly as those in the Member States and they focus more on work-related skills and less on social skills and communication skills. The empirical findings show more divergence than convergence between companies in the Member States and the candidate countries, and even more between the two groups. This makes

it difficult to defend the argument that company restructuring strategies are increasingly influenced by a new approach triggered by increasing demand for learning and innovation.

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Attitudes to education and educational pathway preferences in the Czech Republic

The importance of education and its prestige has grown as a result of the socio-economic changes after 1989. However, the Czech population still attributes less importance to education as a success factor for life compared to more developed countries. Still, young people strive for as high a level of education as possible, the primary incentive being expected financial gain. The characteristic features of the Czech population include a high occurrence of ISCED 3 qualification, a low proportion of the labour force with basic education (ISCED 1, 2) and with no education (ISCED 0) and a low proportion of individuals with tertiary qualifications (ISCED 5, 6). The 1990s saw a sharp reduction in the number of secondary vocational school students and an increase in participation in secondary programmes with 'maturita' and in tertiary education. A further development of tertiary education is hindered by insufficient capacity in higher education institutions. The CR also shows a very low level of upward educational mobility. Participation in continuing education is lower compared to the EU and there is weak motivation particularly among individuals with lower qualifications.

Introduction

As in other post-communist countries, the socio-economic changes in the Czech Republic (CR) induced differentiation in society and remuneration for work. The economic and social prestige of education has increased and the attitudes of the young and their parents to education have changed. The choice of educational pathway is now being strongly influenced by the desire of parents for their children to acquire higher qualifications.

In order to understand the attitudes of the Czech population, it is important to know its current educational attainment and the former factors underlying it. The economically active population of the CR is characterised by a high proportion of individuals with upper secondary education (nearly 44 % have ISCED 3 without 'maturita' and over 35 % have ISCED 3 with 'maturita'). Another feature is a low proportion of the labour force with basic or no education (less than 9 % have ISCED 1, 2) and with tertiary education (a mere 12.5 % have ISCED 5, 6).

This situation is a result of the post-war development of education where a major part of the population could acquire vocational qualifications as early as the upper secondary level (ISCED 3). General education at this level (gymnazium) and tertiary education (ISCED 5, 6) was limited and vocational training at secondary level (particularly courses without 'maturita') was promoted. This stifled, to a large degree, the rise in educational attainment of the population.

This article is concerned with the change in attitudes to education in the course of the transformation of the Czech economy and society, with young people's views of the importance of education and with the factors affecting their choice in this respect. It analyses the reasons why the younger generation's efforts to attain high qualifications is not reflected in upward educational mobility and the barriers hindering access to tertiary education in the CR. In view of the importance of lifelong learning, attitudes to continuing education will be analysed, pointing to its being underestimated by the young and adults alike.

Attitudes to education

The long period of social development before 1989, where ideological attitudes were preferred over the actual qualities of an individual, undermined the value of education - both for social prestige and in economic terms (income failed to reflect educational attainment). The value pattern interlinking education, capacities and living standards was severely disrupted (Matějů et al., 1991).

The Czechs' views of the link between education and success in life have changed significantly in the course of the transformation. As ISSP ([1]) studies show, in 1992 less than 31 % of Czechs believed that education is important for an individual to lead a successful life. In 1997 this 'life success' factor was important for almost 61 % of respondents, thus the CR came closer to developed countries with an average ([2]) of 78.8 %. How-

Life success factors in the Czech Republic (CR) and abroad **Table 1**

Success factor	Developed countries*	Post-communist countries**	CR 1992	CR 1997	CR 1999	Development in CR 1992-99		
						1992-97	1997-99	1992-99
Hard work	71.0	65.6	72.7	71.4	72.5	-1.3	1.1	-0.2
Ambition	76.6	63.6	58.4	73.6	62.2	15.2	-11.4	3.8
Aptitudes, talent	57.2	64.0	57.8	70.4	57.1	12.6	-13.3	-0.7
High level of one's own education	78.8	56.9	30.5	60.9	38.3	30.4	-22.6	7.8
Knowing the right people	45.8	54.8	48.2	65.2	48.8	17.0	-16.4	0.6
Political connections	20.2	21.9	12.2	35.2	19.8	23.0	-15.4	7.6
Rich parents	20.5	36.7	14.4	34.5	19.4	20.1	-15.1	5.0
Education of parents	30.1	32.2	9.6	26.0	14.8	16.4	-11.2	5.2
Gender	14.2	16.1	9.3	16.6	11.7	7.3	-4.9	2.4
Political views	10.4	12.3	13.8	14.4	11.4	0.6	-3.0	-2.4
Territory, region	6.9	9.6	7.0	6.4	11.0	-0.6	4.6	4.0
Race, nationality	17.6	9.8	4.4	13.2	9.8	8.8	-3.4	5.4
Religion	7.2	8.1	2.3	2.5	3.1	0.2	0.6	0.8

Source: ISSP, 1992, 1997, 1999.
* Australia, Germany (western *länder*), Great Britain, the USA, Austria, Italy, Norway, Sweden, Canada
** Germany (eastern part), Hungary, Slovakia, Poland, Bulgaria, Russia, Slovenia
Note: sum of the 'very important' and 'essential' answers in percentages.

ever, between 1997 and 1999 the percentage dropped again (37.7 %), the likely reason being exacerbating problems associated with social transformation and the slowing down of wage differentiation in relation to education.

The changes in the perceived importance of education should be viewed in relation to the changes in attitudes of the population during the transformation period. In the first half of the 1990s (1992-97) the respondents, expecting rapid positive effects, tended to stress the importance of many factors, in the later period (1997-99) there was an opposite trend, which was related to the slowdown in transformation dynamics. The overall change in attitudes was therefore less marked than it appeared to be at the outset of the transformation. However, the value attributed to education has increased more than any other factor, although it still lags behind developed countries.

The increased importance attributed to education after 1989 reflects the actual development trends in wage differentiation. The rapid change in wages during this period established good conditions for differentiation of income. During the relatively short period of the first half of the 1990s the differences in pay between qualifications categories of the labour force changed dramatically. The former levelling of income was replaced by remuneration driven by performance, responsibility and qualifications. If before transformation the average pay of a specialist with a university degree was barely 1.5 times higher than that of a worker with basic education, in 1996 the ratio was 2.5 to 1, a ratio common in European countries with a developed market economy.

Large shifts in terms of pay differentiation on the basis of education no longer occur. Nevertheless, the existing differences provide a strong impetus for young people, in particular, to participate and to acquire as high a level of qualifications as possible in initial education.

Current attitudes of young people: the importance of education for an individual

The views of young people aged 20-29 were obtained as part of a study focusing on attitudes to education and a professional career, undertaken in 2003 using a representative sample of 2 500 respondents (Burda et al., 2003).

Of 13 factors, top importance was assigned by the respondents - regardless of their level of education - to ambition. Second came hard work. Only respondents with a university degree attributed the same impor-

([1]) ISSP - International Social Survey programme

([2]) Australia, Germany (western *länder*), Great Britain, the USA, Austria, Italy, Norway, Sweden, Canada

Assessment of factors important for success in life **Table 2**

	The highest level of education achieved (incl. Students)				
	Basic	**Upper secondary without *'maturita'***	**Upper secondary with *'maturita'***	**Tertiary**	**Total**
Be ambitious	2.1	2.1	1.9	1.7	2.0
Be able to work hard	2.1	2.1	2.0	1.9	2.0
Show certain aptitudes or talents	2.2	2.2	2.1	2.1	2.2
Know the right people	2.2	2.2	2.2	2.3	2.2
Have a high level of education	2.5	2.7	2.4	1.9	2.5
Come from a rich family	2.7	2.9	3.0	3.1	3.0
Have parents with a high level of education	3.0	3.2	3.2	3.1	3.2
The area (region) an individual comes from, where he/she grew up	3.3	3.3	3.3	3.4	3.3
Have political connections	3.2	3.4	3.3	3.5	3.3
Gender	3.3	3.3	3.4	3.4	3.4
Race or nationality	3.6	3.6	3.7	3.7	3.7
Political views or convictions	3.6	3.9	3.9	3.9	3.9
Religion	4.2	4.3	4.3	4.3	4.3

Source: Burda,V.; Festová,J.; Úlovcová,H.; Vojtěch,J. *Přístup mladých lidí ke vzdělávání a jejich profesní uplatnění* (Attitudes of Young People to Education and Their Careers), NÚOV, 2003

tance to 'high level of one's own education'. Respondents in other education categories rated this factor as the fifth, only after 'aptitudes and talent' and 'knowing the right people'.

Although the respondents did not place education as the main factor influencing success in life ([3]), they ranked it among the first half on the list. Most respondents ascribe primary importance to personal qualities, ambitions and the capacity to work hard, which constitute an important condition for making use of the skills acquired through education and training. The survey also points to one positive development, i.e. that the factors mentioned by young respondents to be important for success in life include own efforts including education, and do not include factors such as social background, region where they live, gender, nationality, political views or religious belief.

The reasons why young people did not place education at the top of the scale may become clearer if we consider the data about unemployment and the requirements of employers concerning the educational attainment of their employees. While unemployment clearly decreases along with an increasing level of educational attainment, employers still tend to recruit mostly individuals with secondary education. This makes the CR different from the existing EU member countries, as employment in the CR is still concentrated largely in industry and there is a need for manual occupations. Overall, the respondents realise that a higher level of education may save them from unemployment. However, if they lack high ambitions and willingness to work hard, they will not achieve success and a position corresponding to their education. The reality is that many people must take up jobs for which they are overqualified.

What is it, then, that stimulates young people to achieve high qualifications? The following table presents the most important motivation factors on the basis of the research mentioned above.

It is apparent that the most important factor, regardless of the respondents' level of education, is financial gain. Second by a narrow margin comes the 'interesting job' factor. It is also clear that this factor is more often mentioned by respondents with a higher level of education. The least important motivation factor is family tradition, which the young people probably see as insignificant. The need to satisfy one's desire for knowledge is also at the bottom in terms of

([3]) The respondents were asked to assess the importance of the 13 factors presented in the table according to a five-degree assessment scale (1 = essential, 2 = very important, 3 = important, 4 = not very important, 5 = entirely unimportant). 'I don't know, cannot choose' was also a possible answer. The analysis of the results is based on calculations expressing an average 'mark' on the five-degree scale. The table shows the average rating of each factor and classification according to the level of education. The lowest figures mean the highest importance attributed to the respective factor.

Assessment of study motivation factors ([4]) **Table 3**

What motivates young people to study	The highest level of education achieved (incl. Students)				
	Basic	Upper secondary without *'maturita'*	Upper secondary with *'maturita'*	Tertiary	Total
Need to satisfy one's desire for knowledge	2.4	2.4	2.2	2.1	2.3
Get an interesting job	1.6	1.6	1.5	1.4	1.5
Develop one's talents and capacities	2.2	2.1	1.9	1.8	2.0
Need to get a diploma, 'maturita' certificate	1.8	1.8	1.7	1.8	1.8
Professional development	2.1	2.0	1.9	1.7	1.9
Family tradition	2.5	2.6	2.6	2.4	2.6
Financial gain	1.5	1.4	1.4	1.4	1.4
Interest in a specific discipline	2.1	2.0	1.9	1.7	1.9

Source: Burda,V.; Festová,J.; Úlovcová,H.; Vojtěch,J. *Přístup mladých lidí ke vzdělávání a jejich profesní uplatnění* [Attitudes of young people to education and their careers]. NÚOV, 2003

importance, although it gets more positive rating from people with tertiary education. It is clear that young people with tertiary education, unlike their counterparts in the other education categories, consider additional factors to be important, such as professional development and developing one's talents and capacities.

Changes in the structure of educational pathways

The pursuit of high educational attainment is one of the principal characteristics of the younger generations in the CR. Their intensive interest in education speeded up, after 1989, structural changes in the education system. These changes included reduction of vocational training without 'maturita' (ISCED 3B) and promotion of secondary technical and vocational education leading to 'maturita' (ISCED 3A) with the possibility of continuing into tertiary education. Parents are willing to pay tuition fees for their children, which is a factor that contributed to the establishment of private upper secondary schools providing courses completed by the 'maturita' examination.

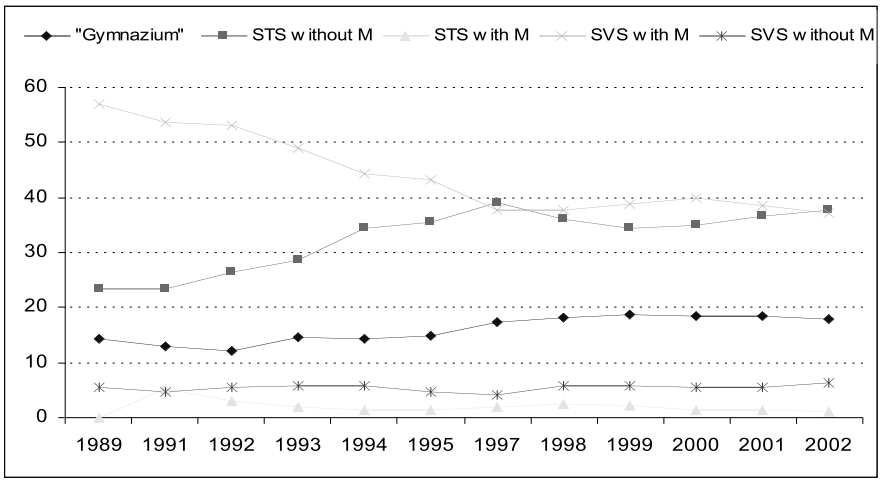
In tertiary education there is continuing social pressure to eliminate the discrepancies between the number of applicants and actual intake. An important role in this respect has been played by so-called 'higher professional schools' (ISCED 5B). Since the mid-1990s they have been a substitute for the very slowly developing provision of Bachelor programmes and made it possible for thousands of young people to achieve 'post-maturita' education. The development of this type of education was highly intensive despite the fact that higher professional schools collect tuition fees. Moreover, the development of private higher education institutions has recently gained in intensity, expanding the capacity of tertiary education. The development in student numbers in ISCED 3 types of education is illustrated in the graph below.

It is clear from the data above that the proportion of students in vocational courses without 'maturita' has decreased significantly, while the proportion of students in VET courses providing full upper secondary education (with 'maturita') has increased. The percentage of students undertaking general upper secondary education has stabilised after a slight increase in the mid-1990s at below 20 %. It is apparent that the choices of the younger generation are affected both by the traditional preferences of the Czech population as well as those of employers, and by the pursuit of higher levels of educational attainment, i.e. at least the 'maturita' level. The final choice of educational pathway is then affected by several other factors.

The dominating reason why students choose vocational training without 'maturita' is their interest in the particular field (in 23 % of cases), or the prospects of a good job or good pay (11 % and 6 % respectively). Other reasons can be summed up as the recognition of inappropriate capacities to complete

([4]) The respondents assessed the motivation factors according to a four-degree scale (1 = definitely yes, 2 = rather yes, 3 = rather not, 5 = definitely not). The table shows the average 'mark' categorised according to the level of education. The lower the figure, the more importance is ascribed to the respective factor.

Proportions of students entering first years of ISCED 3 courses (%) Graph 1



Key: STS with M = secondary technical schools with *'maturita'*
STS without M = secondary technical schools without *'maturita'*
SVS with M = secondary vocational schools with *'maturita'*
SVS without M = secondary vocational schools without *'maturita'*
Note: the year 1996 is not included, since the data are not comparable to other years due to systemic adjustment
Source: Vojtěch, J.; Festová, J. *Vývoj vzdělanostní a oborové struktury žáků ve středním a vyšším vzdělávání v ČR a krajích a postavení mladých lidí na trhu práce 2002/03* [The development of education and field structure in secondary and higher professional education in regions and the position of young people in the labour market], NÚOV, 2003.

a 'maturita' programme (20 %) or a failure in the entrance procedure for a 'maturita' programme (10 %).

A total of 67 % of students entering 'maturita' programmes at secondary technical schools made this choice because they 'wanted to have 'maturita'. This is actually a choice of a higher level of education which facilitates both better employment and access to tertiary education. Other reasons are linked to the interest in the particular field (40 %) and good employment prospects (31 %).

Study programmes at gymnazium are opted for by students who intend to proceed to higher education. The proportion of these students is low in the CR (with the exception of Prague). One of the reasons is that vocational education is traditionally highly respected in the CR and that VET courses with 'maturita' are considered to be equal to academic programmes (i.e. at gymnazium). This is why the CR ranks among the European countries with the highest proportion of young people in secondary VET programmes.

While the 'maturita' examination certificate from general (academic) and vocational education makes it possible to apply for admission to tertiary education, the vocational training certificate from courses without 'maturita' does not faciliate this option. However, the certificate holder may undertake a two-year 'follow-up' course leading to 'maturita' and then continue with his/her studies. In theory this provides for a high degree of vertical transferability in the education system. All students who successfully complete basic school can, regardless of what educational pathway they choose, continue towards higher educational attainment. In practice, however, this opportunity is not fully used because of the selectiveness of the education system and its limited capacity, particularly as regards Bachelor and Master courses.

Educational attainment of parents and children and their wishes

There are clear expectations within the Czech population that the level of educational attainment of children should be higher than that of parents. This is the result of various surveys comparing information about the education of the respondents, their parents and about what education they wish their children to achieve (e.g. Burda et al., 2003). There is a particularly strong interest in tertiary education. Hardly one third of the respondents with basic and vocational education without 'maturita' and less than 10 % of 'maturita' certificate holders would be satisfied with their children achieving secondary education. All the others think their children should have tertiary education (see the bottom line of the tables below).

The following expectations may be inferred from the average data available: vocational education without 'maturita' should be the highest educational attainment of a mere 7 % of the population; 29 % should have 'maturita' from academic programmes leading primarily to tertiary education; and 64 % should have 'maturita' from VET programmes. According to the parents' wishes, only 20 % of the population should lack the opportunity for entering tertiary education, more than 40 % of parents expect their children to undertake Bachelor or higher professional courses and the same percentage goes for Master programmes.

Parents in the Czech Republic expect the education system to provide similar opportunities to those provided by many advanced EU countries. The expectations go beyond the visions set forth in the National

The relationship between the education of the respondent and his/her parents and expected education of the respondent's child **Table 4**

Education of the respondent								
Education of the respondents´ parents	**Basic**	**Vocational**		***Gymnazium***	**Higher professional**	**BACH**	**MAG**	**Total**
		without M	**with M**					
Basic	40	39	20	1	1	0	1	100
Upper secondary without *'maturita'*	12	47	34	3	1	1	2	100
Upper secondary with *'maturita'*	9	17	54	11	1	1	7	100
Tertiary	10	12	30	12	7	4	26	100
Total	**13**	**35**	**38**	**6**	**1**	**1**	**6**	**100**

The relationship between the education of the respondent and his/her parents and expected education of the respondent's child

Expected education of respondents´ child										
Education of the respondent	**Basic**	**Vocational**		***Gymnazium***		**Total**	**No other education at tertiary level**	**Higher professional**	**BACH**	**MAG**
		without M	**with M**	**4 years**	**multi-annual**					
Basic	1	25	58	7	10	100	28	33	11	29
Upper secondary without *'maturita'*	0	11	68	11	10	100	29	35	14	22
Upper secondary with *'maturita'*	0	2	66	13	19	100	8	23	19	50
Tertiary	1	0	44	17	38	100	1	5	14	80
Total	**0**	**7**	**64**	**12**	**17**	**100**	**17**	**26**	**16**	**41**

Source: Burda,V.; Festová,J.; Úlovcová,H.; Vojtěch,J. *Přístup mladých lidí ke vzdělávání a jejich profesní uplatnění* (Attitudes of Young People to Education and Their Careers). NÚOV, 2003
Note:
M = *maturita*
BACH = bachelor degree
MAG = magister degree

Programme for the Development of Education (white paper) ([5]), which envisage an increase in the number of students in higher education to 50 % of the young population, with half of them completing their education with a bachelor degree.

Educational mobility

The difference between these expectations and reality has been proved by an analysis of educational mobility carried out as part of the SIALS ([6]) survey. The likelihood that a son will achieve a higher level of education than his father, or that a daughter will achieve a higher level of education than her mother is decreasing and stagnating respectively over the long term in the CR. This is clear from a comparison of educational mobility of various age groups. The CR ranks among the European countries where this likelihood is the lowest in the youngest generation (up to 35). While an average of 35 % of men in the youngest generation in the countries involved in the SIALS survey (see graph 2) achieved higher education than their parents, the figure was only 26 % in the Czech Republic. The data is not much more favourable as regards Czech women in the age group up to 35, as only 31 % of them had a higher level of education than their mothers as compared to the other countries' average of 45 %.

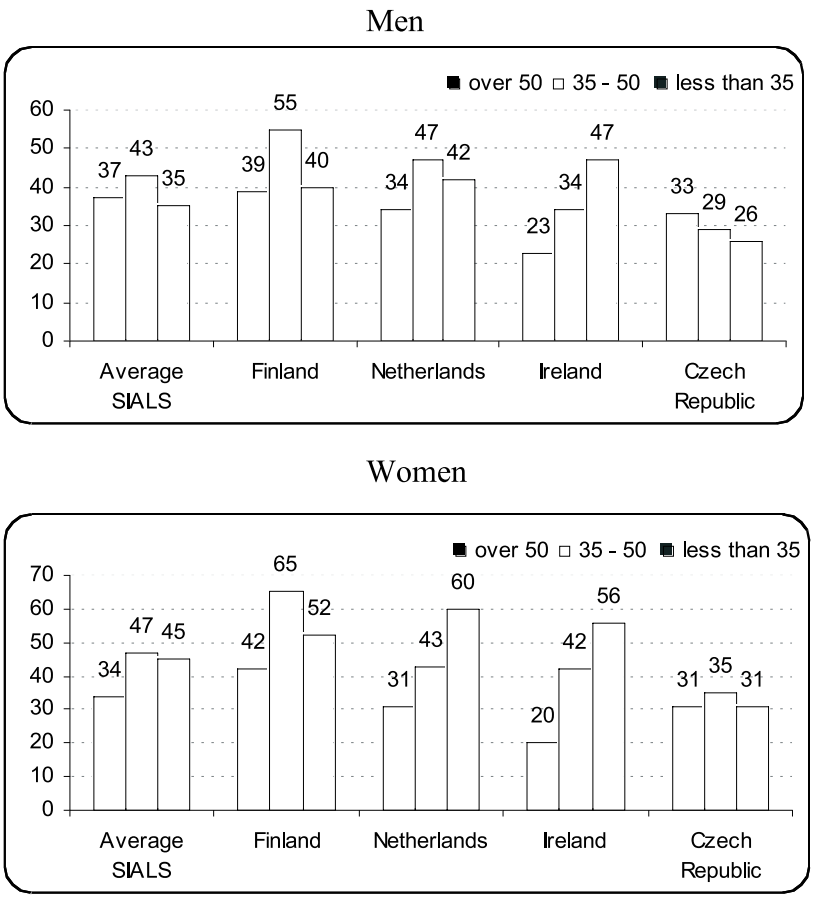
Low level of upward educational mobility has unfavourable effects on the degree to which human capital in various generations is being used and the development of talents that need not be dependent on cultural and educational background of the family environment.

Research carried out in 1996 and 1997 (Průša, Průšová, 1997) has revealed that the dominating factor affecting educational attainment of children is their parents' level of education (this explains 27 % of the variance). At the same time, the influence of other factors (cultural, economic) was mediated by

([5]) National programme for the development of education (white paper), Prague, MoEYS, 2001.

([6]) International adult literacy survey, 1998.

Upward educational mobility in age groups up to 35, 35 - 50 and over 50 **Graph 2**



Source: OECD, Education at a glance, 2000

the parents' education. This confirms the high level of dependence of the children's educational path on the type of family they come from ([7]) Children at the top of the scale are 20 times more likely to study at tertiary level than the children at the bottom of the scale. Financial considerations do not constitute the greatest barrier in access to education. This is evident from the fact that whereas among the group of children in higher education there are great differences between the groups of families with various levels of education, within those groups with a certain level of education, family income does not play a substantial role.

Weak inter-generational mobility in the level of education is rooted in the approaches taken by the Czech education system at all its levels. The school system has a tendency to reproduce inequality for those from low cultural and educational backgrounds rather than levelling it. The reasons include the nature of admission proceedings to secondary schools and higher education institutions and instruction focused on a one-way imparting of knowledge that is of an encyclopaedic nature. This requires more attention to learning at home and favours children from better-educated and more cultured families. The TIMSS ([8]) has revealed that the differences in test results of children as young as thirteen can largely be attributed to the varying levels of education of their parents ([9]). The high level of selectivity in the Czech education system is increased by insufficient capacity in higher education institutions. All these factors stiffen competition in which children from less educated families lose out.

Attitudes to continuing education and training

In view of low inter-generational mobility and limited access to tertiary education one could expect a high interest in continuing education and training. However, the rate of participation in continuing education is relatively low in the CR (around 27 %). It is higher than in other Central and Eastern European countries (Hungary has 18 % and Poland 14 %), but as little as half that in some Member States (e.g. 55 % in Finland, 42 % in Germany) ([10]). As in other countries, the intensity of interest in continuing education may be attributed to the individual's education. However, the differences are more striking in the CR, as individuals with the lowest qualifications (lower secondary education) who face the most adverse response in the labour market show far lower interest in education than their counterparts in the EU.

The willingness to continue with education and training may also be seen in the degree of importance individuals assign to what they learned at school and to what they gained from practice and further training. As research revealed (SIALS, 1998), Czechs ascribe the same importance to continuing education and skills acquired from practice as they do to the knowledge obtained at school. However, for the labour force in EU countries, continuing education is more beneficial than the knowledge learned at school. Nearly 27 % of Czech respondents in the ISSP survey - the largest figure of all countries under review - stated that what they learned in initial education is more important than what they learned from practice and through further training. This implies that, unlike other nations, Czechs do not consider the benefits of continuing education to be so important.

([7]) As part of the survey families were divided into six types based on major factors related to family background: a static manual workers' family, ambitious manual workers' family, non-developed medium family, stable medium class family, businessmen's family, professionals' family.

([8]) TIMSS

([9]) This accounts for 38 % of the variance. In EU countries the differences oscillate between 20 and 30 %.

([10]) Source: Education at a Glance, OECD, 2002 - the data from International adult literacy survey 1994-98.

What is Important for Employment **Table 5**

	Continuing training and practice more important	Both of the same importance	School more important
France	64.26	31.08	4.65
Italy	56.72	31.30	11.97
Sweden	55.95	35.72	8.32
Slovenia	52.44	37.97	9.59
Norway	51.40	38.45	10.16
Germany (former FRG)	50.98	38.16	10.86
Germany (former GDR)	47.13	42.15	10.73
Cyprus	40.89	47.70	11.41
Spain	32.49	51.89	15.62
Portugal	32.38	50.92	16.70
Hungary	28.30	59.00	12.70
Czech Republic	24.07	49.25	26.68

Source: International social survey programme (ISSP), 1997

The fact that initial education is considered to affect professional development more than continuing education is also reflected in young people's attitudes to training while in employment. Surveys conducted among the young labour force (Burda et al., 2003) have revealed that, although the importance of continuing education for work performance is generally acknowledged (over a half of respondents were of this opinion), in reality only a modest proportion of the labour force takes part in it. Three quarters of the young economically active population are not involved in further education at all or only sporadically. The remaining 25 % spends less than 12 hours per year to further education and training - i.e. not even an hour per month.

There is a low level of personal motivation to learn further, as two thirds of young people undergoing continuing education do so at the instigation of their employer. The passive approach to continuing to upgrade knowledge and skills is apparent from the reasons stated for non-participation. A large proportion of young people believe that continuing education is not necessary (almost 13 % of people with tertiary education and over 32 % of vocational certificate holders), or explain they are not involved since they have not been offered the opportunity (41 % of individuals with tertiary education and 51 % of people with basic education). There is stronger motivation among people with a higher level of educational attainment and there are also some differences in favour of women. Groups from the population with a higher level of education show both higher numbers participating in continuing education and training and also devote more time to these activities. This appears to aggravate the differences between the various categories of the population classified in terms of education. Moreover, it may be confirmed that those who believe their knowledge and skills are appropriate are those who most need to enhance them.

Conclusions

The attitudes of the Czech population to education appear to be very positive, despite the lower than average views of education as a factor contributing to success in life. This may be illustrated from the substantial increase in the rate of participation in initial education in the 1990s - in spite of the limited capacity of tertiary education - and also from the changed structure of educational pathways. Young people decisively tend to prefer secondary education with 'maturita' (ISCED 3A) facilitating transfer to the tertiary level over vocational training without 'maturita' (ISCED 3B).

Moreover, the Czech population overly appreciates the value of initial education and its importance in terms of employment prospects; conversely, it underestimates continuing education and training. Evidence of this is low individual motivation and a low rate of participation in continuing training.

Perception of the importance of continuing education for work performance / Attitudes of economically active young population according to educational attainment **Table 6**

In terms of work performance continuing education is:	Level of education			
	Basic	Upper secondary without 'maturita'	Upper secondary with 'maturita'	Tertiary
Definitely essential	41.5	8.9	26.7	48.6
Rather essential	41.5	31.3	38.8	41.6
Rather non-essential	33	44.3	26.1	9.7
Definitely non-essential	25.4	15.5	8.4	9.7

Note: In view of the low figures the positive answers were summed up for the basic education category and the negative answers for the tertiary education category.

One of the reasons is that employers do not recognise certificates from continuing training courses to be equal to those from initial education, which reduces the prestige of continuing training. Improving the standards and the rate of participation in lifelong learning and interlinking initial and continuing education is a major task for Czech education policy.

The Czech education system is very selective, which can be seen from the low level of upward educational mobility and the demonstrable impact of cultural and social family background on school performance. Parents hold strong expectations that their children will achieve a higher level of education compared to them. To ensure that these expectations will be fulfilled, tertiary education, in particular, must be substantially expanded and various qualitative measures must be taken to alleviate barriers to equal access to education.

Key words

Level of education,
vocational education,
continuing education,
motivation,
attitude,
education participation rate

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Adjusting to the falling interest in VET in Slovenia

The article gives an overview of the development issues of VET in Slovenia with an accent on the transition period. It shows how the dual system was gradually replaced by the school-based one and the difficulties its reintroduction faces. It also shows that despite the modernising of VET influenced by EU accession a shift has been observed in the younger generation away from vocational training towards general education that promises higher education and greater social mobility. Several factors such as the valuation of work, transition to services, demographic decline and the network of schools can explain these trends. The ways VET can adjust to these changes are outlined in terms of its further modernisation, enabling the transition to higher education, an accent on information and vocational guidance, and opening up to adults and immigrants.

A historical sketch

Until 1918, the story of VET in Slovenia ran in parallel to Austria, since most Slovenian territories belonged to the Austro-Hungarian Empire. Not very long ago it was still possible to hear older people saying how their grandfathers were trained either by their parents on the self-sufficient farms where they were born or by master craftsmen in craft shops. Training opportunities in schools were quite limited. Those who wanted to prosper had to travel and work for some years with different craftsmen before they could open their own shops and become master craftsmen themselves. It is possible to estimate the numbers of trainees based on figures of industrial and crafts' workers in the two main Slovenian regions Kranjska and Southern Štajerska in 1825 and in 1912, as shown in table 1.

Between the two world wars, when most Slovenian territories belonged to the first Yugoslavia, vocational training was acquired both in work and in lower and higher vocational schools, the main ones being commercial, agricultural and craft-industrial. The number of youngsters in training was rather small; in the active population in 1931, 61 % were farmers (Kramberger, 1999, p. 55; 160), who seldom sent their children to vocational schools after they had finished compulsory general education.

After the Second World War, Slovenia remained in Yugoslavia as one of the Federal Republics. In the period before 1990, two main factors influenced VET. The first was rapid industrialisation, indicated by the share of the active population in the agricultural sector, which fell from 61 % in 1931 to 26 % in 1971 and to 15 % in 1991. The second was the communist regime, which aimed to replace market regulation by planning in all fields, including employment and education. According to Tome (1998), the first development phase after the Second World War lasted until the end of the 1960s. Initially it preserved the old dual system whereby students went to school two days a week and worked four days with their employers. State bodies set standards and regulated the roles of apprentices, schools and employers. For instance, apprentices were paid a modest wage and employers had to employ them on successful completion of their training, at least for a short period. There was also a role for the chambers, which organised the relevant examinations. However, gradually more and more training was carried out in the school workshops and less with employers. As a substitute for training at work, internship was introduced in 1968 to ease the transition from school to work.

In the 1970s the trend towards the expanding role of school-based training continued. There was a tendency towards the unification of secondary education, with an increasing share of general knowledge in vocational programmes and general programmes aimed at specific qualifications to assist graduate transition to work, not just to further education. Youngsters were supposed to start working earlier in their lives and to return to school later. In the 1980s, when so-called career-oriented education and training was implemented, reformers again started to accentuate training in the real working environment. However, this did not happen because school-based teaching did not provide enough knowledge on which to base practical training and, since public enterprises were sinking into ever deeper crises, they were economically unable to take on apprentices. In addition, small private producers and craftsmen were not allowed to take part in training. VET became more school-based and detached from work environments than ever before. Nevertheless,

Number of industrial and crafts' workers in Kranjska and Southern Štajerska in 1825 and 1912 **Table 1**

REGIONS	1825	1912
Kranjska	6 633	36 230
Southern Štajerska	22 702	42 333

Source: Šorn, 1974

Distribution of the active population in Slovenia according to industrial sectors in the period 1931 - 2000 in percentage **Table 2**

	1931	1971	1991	2000
Agricultural	61	26	15	11
Industry	21	34	45	38
Services	18	40	40	51

Source for 1931 and 1971: Kramberger, 1999, p.160
Source for 1991 and 2000: Ignjatović, 2002, p.180

there was a policy to keep 70 % of the young population in vocational schools (Tome, 1998).

Criticism of unified secondary schools came from different sides. It was claimed that the quality of general education had fallen due to the abolition of the general secondary school *gimnazija*. Students were not prepared well enough to continue education at university. At the same time, employers were dissatisfied with the training of graduates from secondary schools. One measurement of individuals in particular occupations who finished qualification programmes for these occupations showed a fall from 38.8 % in 1981 to 34.8 % in 1991 (Kramberger, 1999, p. 63). This indicates the mismatch between educational qualifications and job requirements. As a consequence of these failures, there was gradual reintroduction of *gimnazija* and the dual VET system, focusing on the needs of small private entrepreneurs, from the late 1980s. This was the VET situation when Slovenia gained its independence in 1991.

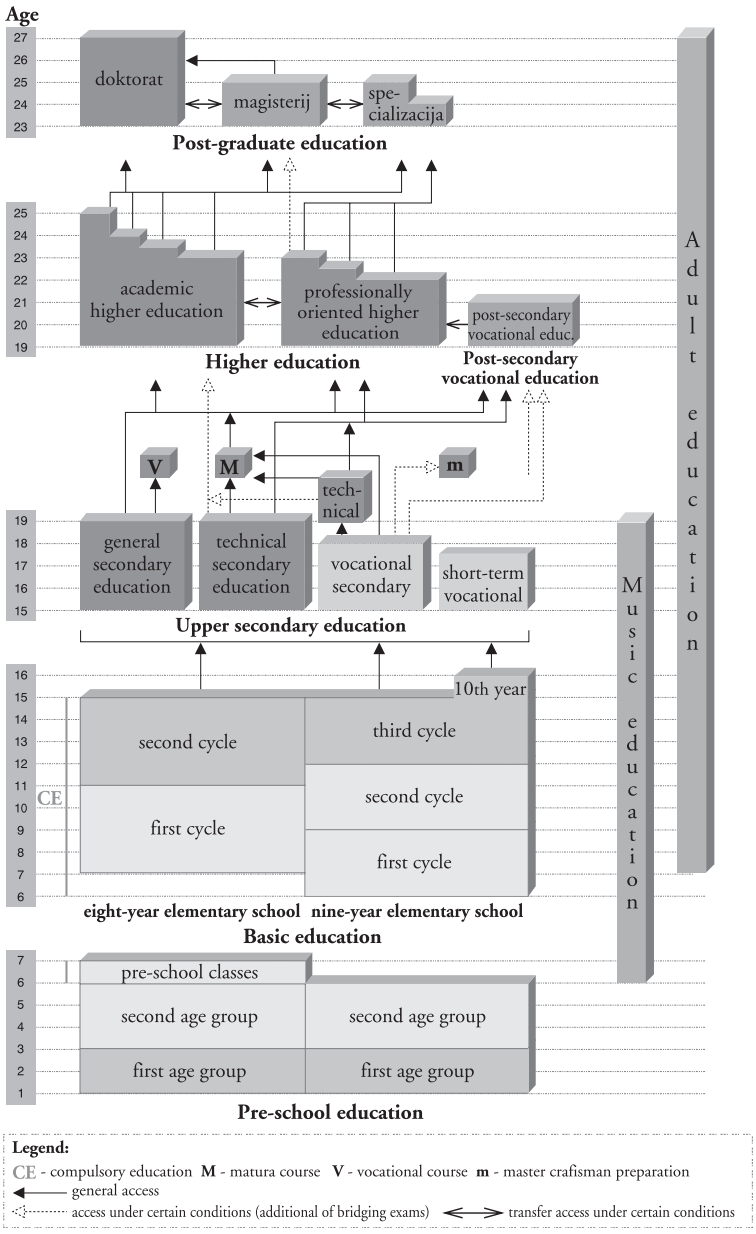
In summarising VET developments in the 45 years after World War II, there was a tendency to move away from the dual system in which private employers played an important role. This was understandable because the private sector of small producers was marginalised by confiscation of private property, administrative barriers to private entrepreneurship and the growth of state-owned industry. Relatively simple production technology was used in new industrial plants, involving mainly unskilled and semi-skilled jobs for which little training was needed. The impression was created that the limited skills required for these simple industrial jobs could either be acquired in school workshops or at work when new employees were recruited. School-based VET was also simpler to organise, easier to plan and cheaper for both the State and enterprises than the dual form.

VET in the transition period

Reshaping through legislation

In the first years of transition, the distinction grew between general and vocational education and training. Finally, this was codified in 1996 in the new education law (www.mszs.si/eng/). The key characteristics of the newly established system are high centralisation and a greater choice of education and training opportunities. As shown in Figure 1 there is, on the one hand, a general school *gimnazija* preparing students for university studies and, on the other, the dual system providing training for the different vocations needed in small craft workshops and industry. In between, one can chose vocational *gimnazija*, technical schools and school-based vocational training. In addition, after completing four years of secondary education it is possible to continue to study at the new vocational high schools (The Education, 2000). This may seem an over-abundance of choices for a small country in which the annual cohort of youngsters counted over 30 000 two decades ago, and has these days fallen to below 20 000 (SO, 2003).

Figure 1



Particular attention has been paid to the partnership-based dual system, which had celebrated its comeback already before the end of the 1980s. This happened for three interlinked reasons:

- the strong influence of German and Austrian education and training traditions;
- nostalgia for the lost dual system in place before, and in the first period following, the Second World War;
- the increasing influence of the private sector, especially small entrepreneurs and craftsmen, who demanded it through their Chamber of Crafts.

Curricular reform started in 1996 (*Izhodišča...*, 1996). It was aimed at modernising teaching programmes, including the introduction of modern teaching approaches and improved adjustment to labour market needs. Unfortunately, vocational education and training did not change much. The reform only confirmed the 'double duality' of VET, meaning that dual programmes, combining training at employers with teaching in the school, and school-based ones, with the accent on teaching in the classroom and training in the school workshop, run parallel. The model for both types of programme has been strongly influenced by generalists, with the effect that in dual vocational programmes approximately 18 % of the time is devoted to so-called general subjects and approximately 15 % to vocational theory; in school-based programmes the respective split is 29 % and 28 % (Mavsar, 1998; *Izhodišča...*, 1996). The criticism of vocational schools has been that they represent *gimnazija* at its lower point, where training for vocational competences is rather weak. In addition, teaching methods have not changed significantly.

The European dimension

Slovenia became a candidate for EU membership in the mid-1990s. This demanded certain adjustments in economic, social and political fields. As a consequence, an important part of two Phare programmes (Phare MOCCA, 2000) starting in 1998, aimed to evaluate and develop vocational training and adult education. A critical review of VET conducted by several Slovenian and foreign experts, guided by the European Training Foundation (ETF), revealed that:

- education and training in Slovenia, including VET, were too centralised and regulated in detail at national level. VET responsiveness to employers' needs was quite low and the related adjustment time too long;
- VET programmes remained very traditional and composed of three blocks: general subjects such as mathematics, physics, foreign and mother languages, history and geography; vocational subjects providing knowledge in specific vocational fields; and practical training in school workshops and/or with employers. These blocks were poorly linked. The structure of curricula and frontal

methods of teaching did not provide the necessary integration of knowledge or the development of either key or occupational competences, such as an ability for problem-solving, communication and learning skills. This offered low motivation for learning;

❑ VET programmes were prepared primarily for the young and not adjusted to adults, who could rarely afford to go to school without a break for three or more years. In addition, the knowledge and skills acquired outside formal education were not recognised either publicly or in the school.

❑ although the dual and school-based programmes led to the same vocational qualifications, graduates acquired different knowledge and competences on their completion.

One immediate result of the VET evaluation was that the Ministry of Labour, Family and Social Affairs put together a group of experts who prepared the Law on National Vocational Qualifications (*Zakon*..., 2003), passed by parliament in autumn 2000. The purpose of this law is to determine the procedure for developing and verifying national vocational standards and, in particular, to enable public recognition of informally and non-formally acquired knowledge and skills for those individuals who meet such standards. National vocational standards also serve as a basis for preparing VET programmes. Two paths to the same qualifications are opened: formal education and training in school, or in the dual system, and certification of prior knowledge. Since VET programmes are usually prepared on the basis of more than one vocational standard, individuals with certain publicly recognised qualifications can bring them to school where they should be recognised if they are included in the prospective VET programme. Similarly, knowledge acquired in school should be taken into account in the process of certifying national qualifications if students leave a programme prematurely. However, certified qualifications do not automatically lead to higher educational grades; for this, some education in school, with the accent on general education, is needed.

Implementing the Law on National Vocational Qualifications took two years, partly because several new institutions were needed to make it work and partly because efforts were undertaken to settle the cost issues raised by employers and trade unions. In 2003 the system was made fully operational, meaning that a greater number of new occupational standards were accepted and the first national qualifications certified and awarded in fields such as pharmaceutical processing, home care and specialised farm production.

Another effect of the evaluation by the Phare MOCCA Programme was that the National VET Council decided to prepare new guidelines for developing VET programmes, which were accepted in autumn 2001 (*Izhodišča*..., 2001). The new Guidelines demand significantly different curricula planning and teaching for VET. The four main changes are as follows:

❑ opening up of curricula so that approximately 20 % of VET programmes should be left undefined at the national level, to be elaborated by schools themselves in collaboration with their regional and/or branch partners. The aim is to adjust programmes to employers' needs while keeping certain common standards, and to let them change more quickly without time-consuming procedures at national level;

❑ provision of integrated knowledge and skills to enable students to develop the competences needed for problem-solving in real work and life situations. This includes leaving the model of subject-structured curricula with the aim of creating a number of learning situations in which practical training and theoretical education and explanation are given simultaneously. This is expected to motivate those students not motivated for frontal lecturing in the classroom;

❑ modularisation of teaching programmes to provide one module for each vocational standard that a programme is based on. Modularisation should enable students, especially adults, to undertake step-by-step education, to enter and leave a certain programme without losses, to combine modules, to certify knowledge acquired in school, to bring certified qualifications into programmes and later continue education, etc;

❑ abolition of the differences between programmes used in dual and school-based systems. Standards should move closer to the dual system, which has a greater accent on practical training.

Changing structure of students in secondary education in Slovenia in the 1990s (in percentage) **Table 3**

Type of school	1995/96	1999/00	2002/03
***Gimnazija* - general**	21.7	32.5	36.2
Technical school - 4 years	36.3	29.8	32.8
Vocational sch. - 2-3 years	42.0	37.8	30.9

Source: Cek, Vranješ, 2003)

Implementing this approach has been far from easy. Two main obstacles have been encountered. The first is the lack of knowledge and experience with modularisation and alternative non-subject-structured curricula planning. It is easy to modularise programmes in terms of breaking them up into smaller parts. However, if these parts are to give students certain rounded competences that can be used in real work situations before the whole programme is finished, the task becomes much more difficult, and organising the teaching process more complicated. It is even more difficult and unusual to merge traditional subjects into problem-structured curricula. If this is done, then teachers would have to change their traditional way of teaching. In addition, if schools are to elaborate the 20 % of their programmes they need the cooperation of partners, who are not well profiled in all the regions. They also need greater autonomy than provided in a highly centralised system.

To overcome these difficulties, a special development programme for implementing new guidelines was launched by the Ministry of Education, Science and Sport. Several groups of Slovenian and foreign experts, in collaboration with school centres, focused on specific development issues. By the end of 2003 the first two programmes were reformulated and proposed to the National VET Council: glass workers and car servicing.

The second obstacle is even more delicate. There has been strong opposition from generalists who claim that the new approach sacrifices general and reflective knowledge in favour of functional skills and competences, which change quickly and do not enable students to continue their education (Muršak, Vidmar, 2001). Their campaign against the new guidelines is quite strong, although for the moment the change in the VET system only applies to the three-year vocational programmes and leaves the four-year technical programmes almost untouched. It is difficult for the critics to accept the argument that young people enrolled in VET programmes have relatively low motivation for general subjects and that general knowledge could be better conveyed in the form of key competences (Key Competences, 2002) and by means of problem-solving, role-playing or other integrated methods. It seems that teachers of general subjects are afraid of losing their jobs and eventual retraining.

Recent trends

Alongside endeavours to reform VET in line with changing labour market demands and experiences in developed EU countries, figures showing interest in VET and enrolment in VET programmes are far from encouraging. Throughout and after the 1990s a shrinking proportion of young people has been going to vocational and technical schools and the trend towards enrolment in general education has been strengthened, as shown in Table 3. Vocational schools are cutting the number of groups/classes and they recently started to reorganise teaching so that they merge groups of students enrolled in different programmes when they have the same or similar lectures in the schedule. The problem is increasing, especially because the network of vocational schools is relatively dispersed. The Ministry of Education, Science and Sport hesitates to close down or merge non-viable schools because it would lose the support of local authorities.

There may be several reasons for the shift away from vocational training. Some seem to be quite profound and difficult to influence significantly by any policy measures.

The first is the low value placed on manual occupations, which is deeply embedded in the culture. This has not changed much since ancient Greek times. The influence of Protestantism in Slovenia was fairly weak and the socialist period merely entrenched

this value orientation. Parents still say to their children, 'If you do not learn you will have to work!' This has not changed in spite of the new technologies applied in several occupations, which make work easier and more interesting. In 1968, the highly skilled worker took 9th place in terms of prestige scale among 14 occupations, the craftsman 11th and the unskilled worker the last place (Toš, 1997). The situation 27 years later is no better. Among 22 occupations, the skilled worker earned 19th place, the unskilled worker 21st and the salesman the last. Only the position of a craftsman has improved, now ranked in 13th place (Toš, 1999). One-third of parents think that vocational schools have low prestige (Čakš, 2001), while teachers who have a strong influence on children's educational careers probably have similar opinions.

The second factor is intergenerational upward mobility, for which formal education offers one of the best possibilities. Nearly all research on the influence of education on incomes, property, standard of living, prestige, etc. reveals a positive correlation (Quality of life in Slovenia, 1996). It is understandable that young people, as well as their parents, want to move up the education ladder. This is why graduates of lower vocational schools want to continue at middle ones, and graduates from these schools want to go on to higher vocational schools and universities. The role of formal education as a channel of upward social mobility was particularly strong in the socialist period when entrepreneurship was no alternative due to the ideological and administrative barriers.

One consequence of upward mobility is that jobs at lower levels of the occupational scale are taken by immigrants and marginal groups, becoming even less popular. Many occupations of this kind in Slovenia can be found in construction, mining and public utilities (ESS, 2003). The local population's interest in training in the respective programmes is very low and they are taken mainly by the children of immigrants and those with low learning abilities.

The third factor gained momentum in the period of transition. The Slovenian economy, which used to be highly industrial, is changing into a service economy. From 1991 to 2000 the share of the working population in agriculture and industry fell while the share of the working population in services rose, as shown in Table 2 (Ignjatović, 2002, p.180). This change is associated with the breaking up of several companies in the metal, textile, wood-processing and other industries. This has given a strong signal to the young and their parents on which schools not to chose. Vocational programmes leading to technical qualifications in the textile, leather, metal and similar industries are therefore losing students, while those leading to service qualifications such as hairdressers, salespeople and administrative workers remain attractive. It should be pointed out that the reaction of young people and their parents is usually too strong and unselective. Therefore, the remaining jobs in the restructured industries, which may still offer good career opportunities and interesting work, are usually overlooked.

There is also the influence of the growing labour market and employment flexibility. Vocational training has frequently been described as too narrow and specialised providing a weak basis for mobility between jobs in the turbulent labour market. There is a prevailing opinion that general education gives individuals better opportunities for alternative careers when the existing ones disappear.

On the supply side, an important factor influencing the shrinking interest in vocational training is demographic decline. The numbers of young people entering secondary education fell by 13 % in the period 1995/96 to 2000/01 (Cek, Vranješ, 2002). Because the supply of education and training programmes has not changed significantly and the number of teaching places has not dropped, the competition for students is being won by the more prestigious *gimnazija*. Young people who could not have aspired to enrolment in such a programme before, suddenly have the chance. Because of this trend, the quality of the *gimnazija* programme has been affected and vocational schools have been emptied more than necessary. Public intervention against the aspirations of the young and their parents is considered very delicate, if not impossible.

The dual system as part of VET has also not attracted as many students as expected. Although intended to become the dominant form of vocational education and training (Medveš, 1999), this has not happened. It was planned in 2000 that 36 % of all VET

students would be enrolled in the dual system. However, the figure was just 11 % in the 2001/02. The reasons for this situation were not the lack of VET programmes and lack of training places offered by employers. In 2000 there were only enough candidates for 19 programmes out of the 29 possible. In 2001/02 only about 40 % of offered training places were filled (Meglič, 2003).

According to Meglič (2003), one reason the dual system has not met expectations is competition from school-based education. Since students can acquire the same qualification through both routes, schools deliberately discourage them from opting for the dual system. In the school-based track there is more time for teaching in the classroom and thus there are more jobs for teachers. If general schools successfully compete for students with vocational ones, then vocational schools focus their competition on the dual system.

There may be other reasons:

- 20 % of parents think that the options to continue education after the dual path finishes are worse than if taking the school-based approach (Čakš, 2001). This is not true because, in 2002, 56 % continued with their education and only 30 % decided on employment (Meglič, 2003);

- some employers could be hesitant to take on trainees because they are afraid of wasted investment if graduates seek to continue education rather than work;

- although the government and the Chamber of Crafts have agreed on sharing training costs in the dual system, this issue has been raised several times by the employers. This indicates that employers consider their share as not being justified;

- it could be that VET programmes in the dual system lead to even less popular occupations than school-based ones. These may include traditional occupations such as watchmakers, goldsmiths, stove makers and similar;

- a number of small employers are specialised and their work environment does not provide any good opportunities for training. This is why they are not eager to offer training posts and trainees do not want to be trained there.

Discussion points

It seems that the trends towards higher education levels and towards service occupations are very strong. They are not only supply- but also demand-driven. The educational structure of the active population in Slovenia is low compared to the educationally more advanced EU countries. In 2002, only 17 % of the working-age population (15 - 64 years) had a tertiary (ISCED 5-7) education (Cek, Vranješ, 2003). Slovenia's most important economic partner Germany had 23 %, while the Nordic countries and Ireland had significantly better (www.oecd.org/edu/eag2003). Similar differences could be observed in the Eurostat data (2002). The higher the education, the lower the unemployment rate (ESS, 2003). If the Slovenian economy wants to compete successfully with others, its workforce must be able to receive and work effectively with the most advanced technologies and provide for effective organisation of economic and social life. The shift from industrial to service occupations also seems natural. VET should take these trends into account and can only adjust to them.

VET schools have always received students with lower school achievements, less motivated for, and with lower abilities in, abstract thinking and theory. They are more inclined to experiment in different work and life situations. The greater the share of a generation going to general programmes, the more selected the students of VET schools will be in this respect. It is very important, therefore, to speed up the described reforms in order to help VET students to achieve better results.

Irrespective of the general trend to more demanding jobs and higher levels of education, some occupations at the middle level of proficiency will still be needed. Among those some traditional ones, goldsmith, straw roof thatcher, gardener, sweets baker, etc., will be needed in the tourist industry if not to meet the population's everyday needs. New ones are also emerging, such as a home care provider and the maintenance of audio and visual equipment. The Chamber of Crafts has started a campaign in cooperation with the Ministry of Education, Science and Sport to make these occupations more visible, to show their interesting sides to potential students and to inform them of employment possibilities. The Ministry of Labour, Fami-

ly and Social Affairs is also considering establishing a permanent professional group to work on anticipating and developing new occupations.

A good response by the VET system to this trend to higher education is to make transition as easy as possible. Such is the case of the so-called 3+2 system. Students who complete a three-year vocational programme can continue with technical education in the following two years, and a great many vocational graduates take up this option. Another possibility for upward mobility is offered by post-secondary vocational schools, which in 2001/02 enrolled more than 6 000 students (Cek, Vranješ, 2003). If these students take the vocational maturity exam some university programmes are also opened up to them.

In light of the upward mobility trend and reducing young population, a lack of labour is expected in a few years' time. This will be especially felt in occupational labour markets. The Employment Service of Slovenia already issues about 40 000 work permits per year for those working in the construction industry and public utilities (ESS, 2003). The increasing number of immigrant workers will pose a special challenge to VET schools. They will need not only vocational skills but also a number of other key competences in order to participate in public life and to integrate with society.

VET schools are also expected to make a special contribution to lifelong learning. They will have to open up to the domestic adult population, not only to immigrants. This offers a chance to compensate for the loss of young students. However, the approach and teaching methods should then also change. Modularisation of programmes and more integrated problem-focused teaching are just two of the changes required. The possibilities of this training are confirmed in post-secondary vocational colleges, where nearly two-thirds of students are adults (Cek, Vranješ, 2003). Offering courses to the unemployed is another example.

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The Bologna Declaration and professional teacher training in Latvia

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This paper examines teacher education in Latvia and ways of developing it in the context of the Common European Educational Area (the Bologna process). It examines current models of teacher education in universities and other higher education institutions, as well as ways of developing these in different types of higher education institutions. It demonstrates the advantages of the integrated teacher training model over the consecutive model, with respect to teacher training that responds to current demands. The paper analyses the way in which both of the main models are used from the perspective of the state and the academic traditions of various types of higher-education institutions. It examines the employment of graduate teachers and other factors that characterise the work and status of teachers in Latvia. It discusses appropriate education policy measures in teacher training.

Overview

Professional teacher training and the status of the teaching profession are currently a serious problem in Latvia.

One of the most important factors in determining the quality of education is teachers' work, their initial and further education and their status and conditions of work.

Modern society sets a very significant aim for education: to prepare students for their future life and lifelong learning, so that they acquire knowledge, skills and competences, which will ensure their personal and social well-being. Achieving this goal should be guaranteed despite the changes taking place in society: introduction of new technologies; increasing numbers of students representing different ethnic groups learning together at the same school; the increase in negative behaviour (drugs, etc.).

Universities continue to want more highly educated school graduates. This runs contrary to the situation of higher education becoming a more mass-scale phenomenon, i.e., a constantly increasing number of school graduates applies to study at higher education institutions.

Thus society's demands of the school system, and ultimately of teachers' work, are increasing, as is the scope of the teacher's responsibilities. It is the teacher who has to implement new obligations and reforms, with appropriate support from educational institutions and their administrations. Therefore, teacher education, opportunities for professional development and improvement in working conditions are also very important. This article is mainly devoted to teachers' initial education.

Data show that the majority (75 %) of teachers in Latvia considers that society does not value their work, and 45-48 % would be prepared to change their profession if they could (Geske, 2000). Many head teachers complain about the shortage of teachers in one subject area or another.

But average statistical data on the number of school pupils and teachers in Latvia (the ratio of pupils to teachers is approximately 10:1) and on graduate teachers (Global Education Digest, 2003), and especially demographic indicators concerning the reduction in class numbers, suggest that there ought not to be a shortage of teachers.

This data should not be grounds for premature opinions or decisions to cut down significantly on initial teacher training. Unfortunately, however, the number of state-financed places allocated by the Higher Education Council (AIP) and the Ministry of Education and Science (IZM) for first-degree courses entitled 'Teacher education and science of education' have been reduced significantly (by 23 %) in the last two years.

The only reasonable grounds for a budget reduction would be accurate observations on the necessary numbers of teachers in specific stages of schooling, particular subjects and groups of subjects in Latvia as a

whole and in different regions, taking into account the existing age and educational profile of the teaching workforce, staff changes, etc. This type of analysis has not, however, been carried out by the IZM. It has not taken advantage of precise statistics by using either the school or teachers' registers kept by the Latvian Education Information System (LIIS) or the information systems of higher-education institutions, to analyse the current situation of teacher training, the employment of graduate teachers and whether or not they remain in the profession.

In place of comprehensive analysis and prognosis, it is argued that graduates of teacher-training courses do not take up employment in schools. By way of justification, the IZM cites only the number of 'new teachers', that is, the number of graduate teachers who have just left higher-education and take up work in schools as of 1 September - the first day of the new school year - in the same calendar year. Furthermore, this statistic includes only the number of those studying with state support, even though over 50 % of students on professional teacher-training and all higher education courses in Latvia pay for their own part-time or full-time studies. This concept of the 'new teacher' was already used in Soviet-era statistics, when these new specialists were centrally appointed to workplaces. It has long since ceased to correspond to reality, if only because the majority of full-time students drawn to the teaching profession begin working in schools while still in their final year(s) of study, and so, apparently, are not included in this 'new teacher' status after receiving their teaching diploma. This leads to the false conclusion that very few graduates of professional teacher-training courses take up employment in schools.

The information technology introduced into the Latvian educational system allows a more accurate survey to be carried out and reveals that of those completing full-time professional teacher training courses, almost half immediately begin work in schools. Furthermore, if we also take those completing part-time professional teacher-training courses, we find that 70 % to 75 % of professional teacher-training course graduates work in schools. These data actually refer to the University of Latvia in 2002 and 2003. It is difficult to imagine that the situation in the other higher-education institutions in Latvia is very different.

These indicators are not, of course, particularly high. Nevertheless, they equal or exceed the relevant indicators for many other professions both in Latvia and throughout the world. In Latvia, growth of these indicators is hampered by the still relatively low level of teachers' pay, overwork, working overtime, lack of satisfaction with time restraints which result in work being left undone, the strict requirements for the teaching profession, which the majority of our teachers are aware of, etc.

There is currently a great shortage of teachers in many European countries and elsewhere. In Latvia, students graduating from professional training are invited to go and work in England, Austria, Germany, the US and other countries once they have obtained their teaching diploma. This sort of situation - namely the development of a significant shortage of teachers - cannot be allowed to occur.

We cannot allow the issue regarding teachers in Latvia to be resolved superficially, either in a quantitative sense (which we have discussed above) or in a qualitative sense.

It certainly cannot be said that, with regard to professional qualifications, teachers in Latvia lag behind their colleagues in other countries. The comparative international research we have carried out indicates that teachers in Latvia are well prepared professionally and carry out their jobs to a high standard, despite the relatively poor funding of training. To cite just a few examples, the results in 2003 of the IEA (International Association for Evaluation of Educational Achievement), Progress in international reading literacy study (PIRLS) and several previous studies (IEA TIMSS1995, IEA RLS) show that our primary-school teachers are working to a very high standard: an international comparison shows that pupils achieve averages of good and excellent in reading, mathematics and natural sciences (Mullis, 2003; Geske, Grīnfelds, Kangro, 1997).

However, today's teaching profession faces an increasing number of demands and teachers have long since ceased to be solely experts in their subjects. Today's teacher is required to do more than merely impart a given amount of knowledge of a given subject to a pupil and test how accurately the pupil has absorbed that knowledge. Rather, a

teacher's main task is now to secure a pupil's learning opportunities - 'teaching how to learn' - both at school and throughout life, and also to help the pupil acquire many other life skills. These many duties and skills are reflected in the draft standards for the teaching profession, drawn up this year in Latvia. Teachers are constantly being faced with new challenges as a result of changes in the family, the labour market, value systems, the unprecedented swift growth in new knowledge and its continual updates, new technologies, globalisation, multiculturalism, etc.

We must, therefore, pay greater attention in particular to the existing teacher training in our universities and other higher-education institutions. This is especially important now, given the planned restructuring of study programmes in Latvia and other European countries. The question is, in what way should professional teacher training programmes be improved, and how should they be structured?

Models of teacher training

There are two main categories that characterise the structure of teacher training in Europe and elsewhere in the world (Busch, 2002; Buchberger et al., 2002; Galton, Moon, 1994, etc.):

- integrated / concurrent;
- consecutive.

A more detailed analysis also reveals four models; the integrated and concurrent models can be analysed separately, and a further model, based on modular courses taken in a sequence freely chosen by the student, can be added. In such a case, we now have the following structure:

- integrated;
- concurrent;
- consecutive;
- modularised.

We shall examine these models in detail below, but shall begin the analysis by reference to the two terms integrated and consecutive.

The comparative advantages and disadvantages of these two broadly used models have been the subject of analysis and discussion for several decades already (Galton, Moon, 1994, Buchberger et al., 2002). This discussion has recently come into the mainstream again in European countries and throughout the world, and significant reforms are under way (see, for example, previous references and also *A new system of teacher education*, 2000, and Želvys, 2001), One of the stimuli for the discussion on the quality of education, educational reforms and particularly the reform of teacher training has been provided by the results of the OECD Programme for International Student Assessment (PISA) and the resulting discussion in many countries. See, for example, the report of the Chancellor of the Federal Republic of Germany to the Bundestag (Schröder, 2002; *Knowledge and Skills for Life*, 2001).

Under the integrated model, the various study components - the academic (subject-specific), pedagogical, psychological, professional, etc. - are combined. In the consecutive model, the student first takes his or her bachelor's degree in a particular area and in the next stage of study (this could be a master's degree), makes the choice to become a teacher and obtain the necessary knowledge and skills (pedagogy, subject methodology, teaching practice, etc.). It follows that in the case of the consecutive model, the bachelor's degree course (e.g. physics, history, English philology, etc.) is not essentially very linked to the teaching profession.

In the consecutive model, therefore, the student first obtains basic knowledge in a particular subject (to first degree level) and then knowledge of how to teach that subject to school pupils. Legal requirements for the length of a teacher's higher education (four to five years), as in most countries, are thus satisfied, in principle. However this education consists of two components with differing volumes of work which are not very interconnected, of which only the smaller component is directly relevant to teacher training, and this does not guarantee a fully rounded education for teachers. Such a scheme is no longer adequate to prepare a teacher for his or her task in modern society.

A teacher is no longer required to impart a given amount of knowledge of a given subject to a school pupil and to test how accurately the pupil has absorbed that knowledge. Rather, a teacher's main task is now to secure a school pupil's learning opportunities - teaching how to learn - at school and throughout life, and also to help the pupil acquire many other skills for life. It is as though the teacher's subject is of secondary importance in relation to the teacher's pedagogical work. Essentially, no matter what the subject, it is, from a psychological point of view, a means of realising the teacher's pedagogical goals, theories and practice. And teachers are much better prepared to realise these goals if they have followed a high-quality integrated teacher-training curriculum rather than one based on the consecutive model. The integrated model does not mean that new teachers lack the necessary degree of subject-specific knowledge. It is a question of the basic aim of the one or the other model.

The advantage of the integrated model is that it puts forward a single aim for the entire four to five year period of study, which is the opportunity to acquire the competences needed by today's teacher. Such an aim secures a unity of purpose between the different study components - the scientific basis of knowledge of the subject (or subjects), teaching methodology, pedagogy, psychological studies, repeated teaching practice in schools - beginning with the earliest courses and other study components.

In the consecutive model, there is essentially no single (integrated) aim for the process of teacher education. Such an aim exists only in the second one to two year phase of study. In the first phase, which lasts for three to four years, the aim of the first (bachelor's) degree is to acquire basic knowledge of the relevant branch of science, with no attempt to link this to a teacher's professional work, given that only a small proportion of graduates in that particular subject will opt for the teaching profession.

Alongside the concept of the integrated model, use is also made of the concept of the parallel model (Buchberger, 2002). This emphasises the fact that subject-specific studies, as well as the methodological studies, teaching practice in schools and other components of the teacher's professional studies, take place (in parallel) within the framework of a single curriculum. However, the different study components are not interconnected sufficiently but if the student can choose the order in which he or she acquires one or other study components (which take the form of course modules), we have the modularised teacher's professional study model. This is, at present, rarely used.

There is a view that the consecutive model is suitable for training grammar school teachers, whose task is to teach the basics of one or other subjects to grammar school pupils, who are highly motivated to learn and whose education supposedly poses far fewer pedagogical problems. However, it is impossible to agree with such an assertion because it neglects the pupils' overall personal development, which is essential in every type of educational institution, and which is defined, for example, in the standard for the teaching profession in Latvia.

The possible defects of the consecutive model of teacher training (its emphasis on knowledge of the subject content with, at the same time, an inadequate development of the teacher's professional skills, study divided into two separate and poorly connected academic areas, the teacher's inability to make use of academic knowledge in his or her professional teaching activities, etc.) are also repeatedly referred to in the green paper on Teacher education in Europe (Buchberger et al., 2002).

For its part, the very latest research on lower secondary teachers in the Eurydice programme leads to the unambiguous conclusion that most teachers are university-educated and that it is precisely the integrated model that has become the norm in Europe, regardless of whether the consecutive model of teacher education exists alongside it or not (European Commission, 2002). Hence, it is thanks to the qualitatively designed and implemented teacher training integrated model that we can expect to produce new teachers much better suited to contemporary demands.

Teacher training in universities and other higher education institutions

Higher costs are sometimes cited as a defect of the integrated model, in the belief that within this model the education of teachers for every separate subject (or subjects) takes

four to five years, whereas, under the consecutive model, it takes only one to two years (after obtaining the first degree). It seems to be assumed that first-degree level study in various areas is completed in every case, regardless of the particular model of teacher education being applied in the relevant university, teacher training college, country as a whole, etc.

This way of thinking gives rise to the essentially incorrect premise that integrated teacher training curricula needlessly 'duplicate' the relevant first-degree curricula, and that a comparatively short (perhaps only one-year) 'pedagogical superstructure' on top of the first-degree curriculum is sufficient as teacher education. Such a premise exists largely in universities, where these first-degree curricula are one of the basic aspects of the university's main activity, whereas teacher education is sometimes not so highly regarded. This in turn gives rise to an apparent contradistinction between universities, on the one hand, and other higher-education institutions, on the other; it is to the latter that professional curricula would appear to be better fitted, as they lack a 'purely' academic first and second degree structure.

Integrated teacher training curricula are the norm where teacher education takes place in a separate higher education institution, although from the general point of view of the interests of the state and of costs, the question remains the same. How best and most economically should teachers - the representatives of this most important and numerically significant profession - be educated (independently of the particular interests of the higher education institutions, internal structures, etc)?

Where universities follow purely academic curricula for the first and second-degree structure, professional studies (including teachers' professional studies) become the responsibility of other higher education institutions, a situation that simply does not correspond to contemporary international practice and tendencies. Nor would it satisfy the principles of the Bologna Declaration, insofar as it does not define significant differences between academic and professional studies. In essence, the process of 'inclusion' of teacher education in universities is in its final stages in Europe (Strategies of change in teacher education, 2002; European Commission, 2002).

The initial stages of teacher education in universities only seems to be less expensive under the consecutive model, since first-degree studies in science subjects receive more funding than teacher training studies. For this reason, it is necessary to carry out an accurate estimate of costs. And it could be predicted that an insufficiently professional initial stage of education will correspondingly require a higher input of funds at a national level for the further education of the teaching workforce.

Moreover, if the relative proportion of privately financed study (including teacher training courses) is as great as it is in Latvia today, then the issue of the relative budget costs of one model or the other would not appear to be relevant, given that students are studying at their own expense, freely choosing between academic and professional curricula (as teachers, lawyers, economists, doctors and philosophers). The state can regulate the employment of the necessary number of specialists in the public sector with more generous terms for repayment of student loans (or cancellation of debts).

Occasionally, the fact that not all graduates of four to five year integrated teacher training courses take up their chosen profession is used in Latvia to argue against integrated teacher training curricula. Such an argument, however, can be applied to graduates of any other professional or academic course anywhere in the world - there is never a 100 % rate - even where there are vacancies in the particular profession or sector (an exception might be students of military or similar academies).

The Bologna Declaration and teacher training models

The choice in various countries between different models is often determined, not directly by analysis of the goals and results of teacher education, but simply by academic traditions and the existing structure of faculties and curricula associated with them in universities and other higher education institutions, or also by a comprehensive reorganisation of these structures.

Now the whole structure and length of study courses in Latvia and other European countries can be influenced by restructuring curricula according to the Bologna Declaration

on the European Space for Higher Education and its follow-up documents (*Diplomatzīšanas rokasgrāmata* = Guide for diploma recognition, 2000]. One of the objectives in that document provides that, by 2010, European countries shall have a two-cycle type of degree structure (undergraduate and postgraduate, or bachelor's and master's degrees) for higher education. The first degree could be conferred as study credits after a course of study of at least three years. However, it should be immediately pointed out here that the Declaration also defines that 'the degree awarded after the first cycle shall also be relevant to the European labour market', which is essentially the most important undertaking in the whole document (Rauhvargers, 2002; Haug, Tauch, 2001). Another international document declares that 'the two-cycle model makes sense only if the graduate is employable both after completing the first and the second cycle' (Rauhvargers, 2002).

If we associate the first degree with the shortest recommended period of study - three years - then this is a shorter period than that required for teacher education under current legislation in Latvia and practically every other country. Consequently, a graduate of the first three-year cycle of teacher education could not be employed as a teacher. Essentially, a similar problem faces all the so-called regulated professions such as medicine, teaching, law and engineering. This two-cycle scheme (3+2) is not really appropriate since, after three years of study in these professions, a specialist in possession of a full degree is not yet qualified, and there is nothing (not even in the Bologna Declaration) to suggest that the situation will be any different in 2010.

If we return to the integrated and consecutive models of teacher education as currently used, it can be seen that, approached formally, only the consecutive model falls partially within the two-cycle scheme with its three-year first degree in a particular branch of knowledge. Moreover, a first degree obtained after three years of study can, according to legislation, in no way be associated with teacher education; the teaching profession would essentially be entered into only later, on completion of a one to two year higher-degree course of study. In this way, the consecutive model will retain all the defects referred to in the previous section.

For this reason, a structural 'reform' of teacher education along these lines would not be desirable. However, obtaining a teaching qualification after a four-year course of study for a professional first degree (in accordance with Latvian legislation, see below), in the framework of which the integrated model of teacher education could be applied, is at odds with the Bologna Declaration. Subsequently, the qualified teacher could, if he or she so wished, progress to a higher level of academic education, and might also obtain an additional qualification by further study for a second (master's) degree or professional master's degree. Teacher training programmes of the 4+1 or 4+2 variety are, therefore, not at variance with the Bologna Declaration, if professional skills, also including subject-specific knowledge, are already obtained by the end of the period of study for the first degree.

German colleagues have objected to ill-considered division of teacher education into two apparent phases, of which one would consist of study devoted solely to knowledge of the subject to be taught, and the other to acquisition of professional teaching competence (Busch, 2002). Professor F. Busch of Oldenburg University has taken a stand in his work in favour of the integrated (single-phase) model of teacher education. Professor Busch emphasises the need to connect theoretical studies with teaching practice from the earliest stage of the course, so that the future teacher's observations in schools and the resulting questions can be resolved by the application of theory in the lecture theatre immediately afterwards. He is also in favour of a simultaneous and interconnected acquisition of the scientific fundamentals of the subject, on the one hand, and of its teaching methodology, on the other.

A truly radical reform of teacher education has begun in Sweden, where the integrated model of initial teacher education is being introduced together with a sharp increase in funding for research and postgraduate studies specifically in teacher education (A new system of teacher education, 2000). Integrated teacher training degrees are being introduced and correspond to 120 to 220 credit points, depending on the subject concerned (of which there will definitely be several) and the stage of schooling.

It is also the case that the Language Centre of Germany's fourth largest university - the Wilhelmine University of Westphalia at Münster - and the Federal Teacher Examination Centre have taken the decision to undertake the transition to an integrated teacher training model within the framework of the Bologna process, paying particular attention to integrating the university teaching process with teaching practice in schools.

The integrated model of training foreign-language teachers at the Faculty of Education and Psychology of the University of Latvia is cited as an example of best practice in the documents of the European Union's TNP project (Davis and Kelly, 2002, p. 13).

Both models of teacher training referred to earlier can be encountered in Latvia at this time, which is also the case at the University of Latvia. The Senate has twice resolved that both these models be applied and developed at the university. This should be considered a positive step, since it enables both a theoretical and practical comparison of the two models to be drawn. Data from the University of Latvia show that, in the last five years, of all teachers graduating from the University of Latvia, 75 % to 80 % have studied under the integrated model in the Faculty of Education and Psychology, and correspondingly 20 % to 25 % in other faculties, largely under the consecutive model. The exception is mathematics teachers in the Faculty of Physics and Mathematics, where the integrated model is also applied).

This comparison of the two models of teacher training does not mean that current integrated teacher curricula in Latvia are perfect and do not require alteration and improvement, and that, for their part, applied teacher training curricula based on the consecutive model are wholly inappropriate.

The analysis is intended to compare the two models and to demonstrate that, in restructuring and improving teacher training curricula, the integrated model with its many potential advantages should be retained and developed further (by, inter alia, strengthening the integration of various components of study) as this better ensures teacher education in line with current demands.

Placing an emphasis in the university solely on the consecutive model would largely lead to a diversion of teacher education to other higher education institutions. In such a case, those secondary-school leavers who had decided to follow a teaching career and wished to obtain a teaching qualification would not be interested in commencing their studies at a university, since they would first be required to study for at least three years for a bachelor's degree and only then be able, in a two-year period, to acquire the necessary professional skills for teaching (resulting in a total duration of studies of at least five years).

A conceptual approach to teacher training, applying the integrated model, is intended to achieve unity of purpose between a scientific basis of knowledge of the given subject (or subjects), teaching methodology, pedagogy, psychological studies, repeated teaching practice in schools (beginning at the earliest possible stage) and other study components; this gives the student the opportunity to acquire the skills needed by today's teacher. The various study components must be mutually integrated.

Under current legislation in Latvia, such a conceptual approach could be applied within the framework of a professional first-degree curriculum, amounting to at least 160 credit points (four years). After this, the student would 'be awarded a fifth-level professional qualification and a professional bachelor's degree in a branch of knowledge (area of professional work)'. The particular branch of knowledge in which the professional bachelor's degree would be awarded could be 'teacher education', and the professional qualifications, which are various, corresponding to the subject (or subjects) mastered by the new teacher and the stage (or stages) of education in which he or she intended to work (secondary education and/or primary education, and other variants).

Integrated teacher training programmes applying the four-year professional bachelor's degree approach, have already been developed at various higher education institutions in Latvia.

Carrying out improvements to the structure of academic and professional programmes and curricula at the University of Latvia, and developing professional study programmes for the teaching qualifications necessary in Latvia, demands development and im-

plementation of the integrated approach, with cross-faculty study courses on a modular basis.

The development of study programmes or optional modules for obtaining teaching qualifications in several subjects in two stages of education, which is currently not taking place to a sufficient extent in Latvia, would be desirable. The narrow (single-subject) specialisation of the majority of working teachers is causing additional difficulties for teachers in the labour market and for head teachers in staff recruitment.

Conclusions

❑ The structure of teacher education throughout the world falls into one of two categories: integrated (parallel) and consecutive. Up to and including the lower secondary level, the integrated (parallel) model of teacher education has become the norm in Europe. Upper secondary school teachers are currently being educated under both models; frequently, both models are applied in the same country. Teacher training for all stages of schooling is increasingly being undertaken in universities, and it is considered that the development and inclusion of teacher training courses and curricula in universities has reached its final stage in Europe.

❑ It is the integrated model that ensures a form of teacher education more appropriate to current demands. In Latvia, the integrated model can be applied within current legal requirements in the form of a professional bachelor's degree (teacher training) study programmes.

❑ The restructuring and reorganisation of teacher training curricula must be carried out by analysing the demands and situation of teacher education itself, and not by applying general 'universal' schemes. Reforms based on this latter approach may achieve a unified common structure for courses of study in higher education, but at the expense of a substantial reduction in the quality of teacher education and its relevance to current demands, and lead to the need for increased funding for further education.

❑ In the course of improving teachers' professional curricula in Latvia, it is necessary to switch to training teachers in two or even several subjects, and at two stages of schooling.

❑ There has still been no accurate assessment in Latvia of requirements regarding teacher numbers in specific stages of schooling, specific subjects or groups of subjects, either in Latvia as a whole or in different regions, taking into account the existing age and educational profile of teaching staff. There have, though, been drastic reductions in state-financed places on teacher training courses for several years now.

❑ Data and methods for analysis of the professional workforce must be selected on a sound basis, which is already possible given modern information technology and its application in the educational system in Latvia. Analysis of the current situation with respect to teacher training, the entry of graduate teachers into employment, and the degree to which they remain in the profession, must use school and teacher registers held by the Latvian Education Information System (LIIS) and the information systems of higher education institutions.

❑ Not all graduates of professional teachers' study programmes in Latvia take up work in schools; this can be attributed to the insufficiently high prestige of the teacher in society, relatively low levels of pay and other factors. Comparison of LIIS and University of Latvia information system data show that, in recent years, the percentage of graduates of the University of Latvia's professional teacher programmes working in schools is no less than 70 % in total; for full-time the figure is 42 %. A similar situation exists in many other countries and also in other study programmes within Latvia.

❑ Latvia must develop a teacher education development programme, containing a quantitative analysis of the current situation and a prognosis of the future, regular monitoring of the developing situation, analysis and improvement of the quality of teacher education and further education, including focused research and development of teacher training models, integration and modernisation of components of study programmes, the application of practice in schools, the employment of new teachers in schools and other considerations.

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Key words

Quality of training,
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Reshaping the focus and structure of vocational teacher education and training strategy in Lithuania – a systematic approach

In this article the contemporary state of pedagogical qualification of Lithuanian vocational teachers is discussed. The new role of VET teacher and VET school in vocational teacher training, following the lifelong learning paradigm, are discussed. Main approaches, principles and parameters of the new vocational teacher training strategy in Lithuania are revealed and grounded. The structure of VET teacher's professional standard and general scheme for vocational teacher education and training in Lithuania are presented and discussed.

Introduction

Lithuania is facing new challenges and demands on its vocational education and training and vocational teacher education. Research on current Lithuanian VET teacher professional qualification shows great demand for pedagogical qualifications ([1]). This article discusses a number of issues: the current state of didactical and vocational qualification of Lithuanian vocational teachers and lecturers ([2]); the competence-based professional standard of vocational teaching and its structure in relation to the lifelong learning (career path) model; new challenges for vocational teacher education in this lifelong learning model; the role of VET schools in competence based VET teacher education; the quality of the interaction between teacher training institutions and VET schools in initial and continuing professional development of VET teachers; the main approaches, principles and parameters of the new Lithuanian VET teacher education strategy, with its focus on a VET teacher professional standard and teacher education standard based on a modular training approach. The article does not deal with prior learning assessment methodology, assessment tools to measure acquired didactical competences in prior teaching/learning practice and recognition (accreditation) of VET teacher education programmes at European level, currently under development in Lithuania.

New VET teacher and school roles for lifelong learning

The EU Memorandum on lifelong learning (2000) made clear the importance of education as a main driving force in long-term human resource development, which could make Europe more competitive in the world. In addition, the OECD's 'PISA (Programme for international student assessment) study (Buck, 2002) faced politicians with further education development problems, illustrating a poor position and offering numerous proposals for reform. The shift of educational emphasis, summarised in the words 'lifelong learning' (LLL) had started in such countries as Canada and New Zealand and was highly rated by PISA for the first positive results being obtained already. The shift to lifelong learning also concerns that very important part of vocational education system that is vocational teacher education: it insists on changing the role of vocational teachers in VET schools and the role of VET schools in the consecutive and competence-based model of VET teacher education and training. What do these changes of the roles signify and who will feel the challenges in the reality of initial and continuing VET teacher education?

The new VET teacher role is first concerned with a change in pedagogical approach, turning from teacher-centred to student-centred. Following this change in approach, voca-

tional teachers very often present themselves as teaching/learning programme designers and developers, coaches and assistants, members of school activity development teams, consultants in learning and vocational career, facilitators and developers of learning, participants in international projects, cooperation and communication networks, etc. Nevertheless, many teachers still like to teach, but do not like to learn. VET teachers at all levels have to understand the meaning of LLL and follow the LLL approach in their daily work and own personal development.

The lifelong learning model concerns not only a single VET teacher, but a whole VET school strongly linked with the world of work and labour market demands via a changing structure of qualifications and a competence structure for each occupational or professional qualification. It means that each VET school is a part of an educational market and, to survive, has to turn into a learning organisation. Clear understanding of the local, national and international mission of the VET school, ability to design its vision, school staff development plans and quality management systems are all new roles for VET teacher education. The main external features of a learning organisation could be openness to the environment and innovations, and active participation in the processes of change. The main internal features of a learning organisation include: developmental strategy; participation of a VET school community developing a school vision according to a perceived mission; obtaining and disseminating information in all directions; accountability; partnership principles among school departments; flexibility in promotion; a wide range of opportunities to act individually and in teams; emphasis on external relations; self-development of staff; and a positive psychological climate in the organisation.

VET school is important for vocational teachers, together with university or college (providing the vocational teacher with a didactical qualification) and enterprises (providing the vocational teacher with the most advanced, strategically-oriented vocational competences) in providing competence-based VET teacher education focused on the acquisition of advanced practical teaching skills. Integrating a future workplace (VET school) into vocational teacher education and training demands both tutor supervision, provided by the university or college, and a work mentor (an experienced VET teacher with special competences). Competence-based vocational teacher education and training also demands a new approach to curriculum design, from a curriculum built on separate vocational subjects to one built on integrated modules, where each module is oriented to acquiring a specific competence or set of competences. Such a modular approach to initial and continuing professional development would enable a flexible response to the individual needs of student teachers; prior learning assessment (PLA) methodology and changes in the labour market; could be used to decline (or omit in the case of competences already possessed) modules with little demand in favour of designing new modules with greater relevance. The modular training approach would also enable closer integration of theory and practice, achieving good interaction between teacher training institutions, VET schools and the social partners, establishing the necessary preconditions for developing personal and institutional vocational teacher education and training networks at local, national and international levels. It is obvious, that a vocational teacher is nowadays a networker across school boundaries (Pukelis, Laužackas and Rogojinaru, 1999) and that is the future role of the vocational teacher in VET school. Hence, the VET teacher is becoming a reflective practitioner, or even a small scale research practitioner, since anticipation of changes in the labour market, prognosis of new qualifications or new structures of competences in professions, demands appropriate research competences from the VET teacher. This could be achieved by bringing VET school and university (or other higher educational institution) closer in vocational teacher education (Fullan, 1993). Development of vocational teacher research competences also positively influences VET school capacity to innovate in initial and continuing professional development of vocational teachers and to respond to the demands of the knowledge economy.

Current Lithuanian vocational trainers' professional qualification

Research has involved all the vocational pedagogues (VET teachers and lecturers) in Lithuania. The majority work in the Ministry of Education and Science and the labour market training centres of the Ministry of Social Security and Labour. The formal level of general and pedagogical education of

([1]) Pedagogical qualification in this article is understood as an interrelated and integrated summary of vocational (occupational or professional content knowledge, skills and attitudes) and didactical (knowledge's, skills and attitudes - teaching/learning theories, objectives, methods and means, adjusted to the nature of vocational occupation or profession) qualifications. Each of them (vocational and didactical qualifications) consists of an appropriate set of vocational and didactical competencies (not competences).

([2]) Previous VET high schools, staffed mainly by VET lecturers, are converting to VET schools (VET lecturers are becoming VET teachers) or VET colleges. The last of these is already attributed to the non-university higher education sector.

General statistical data on vocational teachers and lecturers in Lithuania **Table 1**

Category of vocational pedagogue	*Informations générales*										
	Total	Age (years and percents)			Working experience in vocational field (years and percents)				Pedagogical experience (years and percents)			
		<=30	31-50	>50	0	<=5	6-10	>10	<=5	6-10	11-15	>15
Vocational teachers	2615	5.9	65.0	29.0	25.2	26.4	26.3	22.0	17.3	13.2	19.1	50.4
Vocational lectures	1673	7.5	47.2	49.0	41.1	21.0	22.2	15.7	11.3	8.8	15.0	64.9
Vocational teachers of LM	489	9.8	40.4	49.6	0	11.8	42.7	45.3	13	18.2	24.3	44.3
Total	4777	6.9	56.3	36.8	28.2	23.0	26.6	22.3	14.8	12.2	18.2	54.9

Basic formal statistical data on vocational and didactical education of vocational pedagogues in Lithuania **Table 2**

Category of vocational pedagogue	Total	*Vocational education level*							*Didactical education level*					
		Without sec. (%)	Secon-dary (%)	High (%)	Bachelor (%)	Certificated special. (%)	Master (%)	Doctor (%)	None (%)	High (%)	Bachelor (%)	Certificated special. (%)	Master (%)	Doctor (%)
Vocational teachers	2615	0	9.2	42.6	0.4	46.2	1.5	0.07	87.6	2.9	0.2	8.3	0.96	0
Vocational lectures	1673	0	0.18	5.98	1.5	87.98	2.9	1.5	57.6	1.5	0.5	37.96	2.1	0.36
Vocational teachers of LM	489	0	14.5	20.3	0.8	61.1	1.8	1.4	78.3	0.6	0	18.8	1.4	0.8
Total	4777	0	6.6	27.5	0.82	62.34	2.0	0.7	76.2	2.8	0.27	19.78	1.4	0.2

Lithuanian vocational pedagogues was investigated, with confirmation by relevant documents. The formal statistical data was collected taking into account:

- the vocational education level of vocational teachers and lecturers;
- the didactical education level of vocational teachers and lecturers;
- general data (age, working experience in a vocational field, pedagogical experience) of vocational teachers and lecturers.

All these parameters are significant in forming a picture of Lithuanian vocational teachers and indicating their main initial and continuing professional development needs.

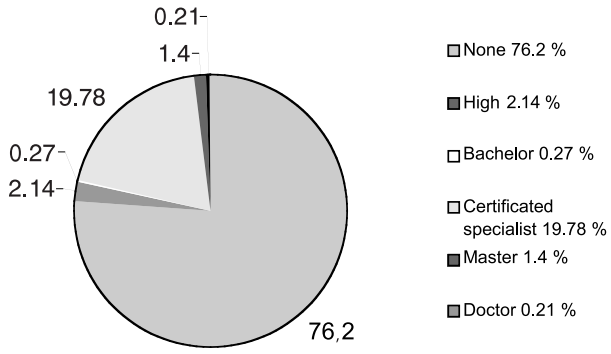
The research data covers 4777 vocational teachers in Lithuania including 2615 vocational teachers in secondary vocational schools, 1673 vocational lecturers in higher VET schools currently being converted to VET colleges or VET schools and 489 vocational teachers working in labour market training centres. The main difference between VET teachers working in VET schools and VET teachers working in labour market training centres is in different needs in didactical education: the first mainly use pedagogy, the second andragogy (adult education theory).

The detailed results are presented in tables 1 and 2. The average age of vocational teachers and lecturers (Table 1) is 31 to 50 years old (56.32 %). The majority (62.34 %) are certificated specialists in their vocational field (Table 2). In contrast, 76.2 % of vocational pedagogues do not actually have a formal didactical background (Figure 1), but approximately 70 % (18.2 % + 54.9 %) have pedagogical work experience exceeding 10 years (see also Annexes I, II, III, IV and V).

The conclusion could be drawn (Figure 1) that acquisition of didactical qualification is the most urgent need for vocational teachers in Lithuania. However, about 70 % have

more than 10 years pedagogical work experience in VET school, college or labour market-training centres. This suggests that a significant number already have didactical competences that reflect pedagogical qualification. Therefore, acquisition of didactical qualification could be organised in two ways: first, via initial pedagogical training courses and, second, via assessment of prior learning achievements. The second alternative could save financial and time resources of both the State (employer) and teacher. The current state of vocational teacher qualifications in Lithuania emphasises the acquisition of didactical qualification; this has been translated into the development of Lithuanian vocational teacher education and training conception.

Formal level of didactical education of vocational pedagogues of Lithuania (%) **Figure 1**



Main actors in competence-based vocational teacher education

Pedagogical (didactical and vocational) education and training of vocational teachers takes place in universities or other higher pedagogical or vocational educational institutions, so indicating the main purpose of such education, didactical or vocational theoretical knowledge leading to appropriate theoretical pedagogical thinking. It also takes place in vocational schools or colleges, where the main focus is on practical teaching/learning competences, leading to appropriate practical pedagogical thinking. Universities mainly provide theoretical pedagogical study, allowing vocational teacher students to acquire theoretical pedagogical knowledge, a background of pedagogical thinking for educational problem-solving. Vocational schools or colleges promote practical pedagogical studies for students in a real pedagogical environment, developing the practical teaching/learning skills of future vocational teachers. During theoretical and practical studies, the future teacher faces various teaching and learning problems. He/she is not able to solve all of them independently as his/her pedagogical experience is insufficient. Therefore, the support of other participants in vocational teacher education and training is important to the efficiency of pedagogical studies and their quality.

The main actors in vocational teacher education and training are university and VET college lecturers and tutors and mentors and future vocational teachers already working in VET school. Table 3 details vocational teacher education and training participants, their activities and activity content (omitting VET school students).

The functions of a lecturer in university and other higher schools are participation in vocational teacher training, and realising theoretical study aims (conveying pedagogical knowledge, development of pedagogically valuable approaches and attitudes, theoretical pedagogical thinking elements, etc.) during lectures, seminars and other activities.

The functions of a tutor (Great Britain) or a university supervisor (the USA and other countries) are also performed by university or other higher school lecturers. However, they, differ from university lecturers in having concrete didactical and managerial responsibilities with regard to vocational teacher education and training. For instance, a tutor participates in designing, planning and evaluating vocational teacher education and training programmes, and examines practical studies guided by mentors in accordance with vocational teacher education and training programme objectives (Rozemond, 2000; Frits, 2000). This includes: supervision; instructing future vocational teachers through distance coaching; visiting future VET teachers at schools; discussing the achieved outcomes together with them and with mentors; coaching on planning further learning objectives; and cooperating with mentors to guarantee a close interaction between theoretical and practical studies. Therefore, practical pedagogical studies demand cooperation between vocational school and university or any other higher school.

The main actors of vocational teacher pedagogical education and training Table 3

Participants	Activity	Activity content
Lecturers	Theoretical education of vocational teachers	Analyses of lectures, seminars, teaching/learning skills practicums, designing of subject (module) content, organising the independent work of vocational teacher students, planning of study process, teaching of subject, assessing and evaluating achieved study results, evaluation of teaching subject (module) content, lecturing, improvement of study content and methods.
Tutors	Participation in designing the modular programmes for vocational teacher education and training, theoretical vocational teacher education and supervision of practical realisation of theoretical study objectives by distance coaching	Act as lecturers, take part in designing and planning vocational teacher education and training programmes, observe the future vocational teacher theoretical and practical activities, participate in discussions with future VET teachers and mentors, encourage future vocational teachers by providing advice and consultations, maintain their study motivation, evaluate achievement, provide feedback by distance coaching, evaluate vocational teacher education and training programmes with regard to responses from programme participants.
Vocational teacher students	Theoretical and practical pedagogical studies	Study theoretical subjects or modules, perform direct teaching practice in vocational school or college, observe teaching/learning process and its elements, participate in discussions with lecturers, tutors, mentors and colleagues, plan teaching/learning activities, reflect their own and colleagues' teaching activities, reflectively evaluate feedback received from tutor, mentor, colleagues, learners, their parents and social partners.
Mentors	Working guidance assisting vocational teacher student to acquire practical pedagogical skills by direct coaching	Meeting future vocational teachers carrying out practical training, discuss strategy of pedagogical practice by working guidance, together formulate the main aims and objectives of pedagogical practice, develop pedagogical practice and working guidance plans, guide pedagogical practice, coach, observe vocational teacher student activity in the classroom, school, enterprises and meetings with parents, assess achievements, interpret them and provide feedback, assist in solving various pedagogical problems, foster and maintain pedagogical activity motivation by direct coaching, support VET teacher student becoming a member of VET school community and understanding its organisational culture.

A mentor (associated teacher, clinical instructor, cooperative teacher) normally is an experienced vocational teacher (Mentor Training in Vocational Training, 1998), who helps a future VET teacher during practical studies to convert theoretical knowledge to practical teaching/learning skills, understand better the peculiarities of VET teacher activities and assists him or her to 'grow into' the school organisational culture. The major mentor activity in future vocational teacher or lecturer pedagogical practice is working guidance (Klenke and Kruger, 2000). The mentor has to be a strong personality, to believe in the significance of pedagogical work, to comply with pedagogical ethics, be creative, tolerant, emphatic, etc. He/she has to be able to take advantage of information technology possibilities, develop teaching/learning content, prepare teaching/learning materials, participate in project work (plan, implement, evaluate, adjust), organise team work, apply active teaching/learning methods and various coaching methods, prepare meetings for future VET teachers, create an agreement for cooperation, be able to communicate and interpret, provide feedback, advise, know how to carry out acts of pedagogical intervention, investigate needs, observe, develop counselling skills in researching and identifying practical situations and finding optimal solutions, apply various pedagogical methods to make VET teacher education and training more effective.

During practical pedagogical studies, there is interaction between the tutor (who inspects or carries out the function of supervision), the mentor (who guides the practical activity of the future vocational teacher), the vocational teacher student (who performs practical pedagogical tasks) and the VET school student. The nature of interaction is determined by practical pedagogical study aims and objectives. Its effectiveness depends on the competence and motivation of the participants. As research indicates, the majority of problems arise with the most important agent of practical pedagogical studies, the mentor. The problems can be caused by many factors: competence, interest and motivation, pedagogical approach and attitudes, experience, financial issues, etc. According to Christensen (1988), who investigated the interaction between future teachers, tutors and mentors, communication between future teachers and tutors is a partnership of equals. An evaluative approach prevails in commenting upon lessons and other pedagogical tasks: pedagogical errors and difficulties are analysed, conclusions drawn, strategy and tactics of pedagogical practice are formulated, independent thinking is fostered, problem-solving solutions are foreseen. The interaction between future teachers and mentors is of a different nature. The mentor predominates in the discussions, which are limited to reviewing events and student learning activity. Directive conclusions prevail and future vocational teachers are appointed tasks for future activity, usually without justification.

Ben-Peretz and Rumney (1991) state that, in Israel, interaction between future teachers and mentors is usually of an evaluative nature. Future teachers are rarely provided with suggestions or alternatives for their activity. In contrast, discussions with tutors are similar to the ones described by Christensen (1988). Koerner (1992) researched the causes of the communication shortcomings between future teachers and mentors. It was discovered that mentors - experienced teachers - feel irritated because future teachers disturb their usual working pace, make them waste their time, and hinder their concentration on their own work problems. Experienced teachers are concerned when future teachers bring various ideas from a university or other higher educational institution to school, ideas that purportedly do not correspond to the real life, stereotypes of their activity or even contradict them. Consequently, choosing appropriate experienced teachers to carry out the mentor functions, and proper mentor preparation, has become a very important factor in vocational teacher training, based on the acquisition of practical pedagogical competences.

Leavitt (1991) states that contradictions between tutors and mentors arise from different understanding of practical pedagogical study aims by theoreticians at universities and practitioners at schools. Therefore, tutor and mentor pedagogical communication and cooperation is an important factor in practical pedagogical study development. One of the most important issues in their cooperation is training experienced teachers to perform mentor functions and manage their further communication in the process of vocational teacher education. Such a mentor training programme is already in practice and is supported by the Ministry of Education and Science.

Summarising above:

❑ the EU Memorandum on Lifelong Learning (2000) made clear the importance of education as a main driving force in long-term human resource development, which could make Europe more competitive in the world.

❑ the acquisition of pedagogical qualification is the most urgent need for vocational teachers in Lithuania since more than 70 % of them do not have any pedagogical background. However, about 70 % of vocational pedagogues have more than ten years pedagogical work experience in VET school, college or labour market-training centres. Hence, creating a prior learning assessment methodology is a very urgent and useful tool to save state and client (VET teachers without pedagogical qualification) financial and time resources.

The main new challenges for VET teacher education and training are:

❑ change of stereotypes of pedagogical behaviour of VET teachers from teacher-centred to student-centred approach;

❑ change of VET school into a learning organisation;

❑ integrating the future workplace into vocational teacher student education and training or close interaction of theoretical and practical studies in VET teacher education and training;

❑ change in curriculum design from a curriculum built on separate vocational subjects to one built on integrated modules targeted to concrete competences;

❑ turning the vocational teacher/lecturer to a networker across school boundaries;

❑ turning the VET teacher from a reflective practitioner to a small scale research practitioner;

The main actors of competence-based vocational teacher education and training are lecturer, tutor, VET school mentor and vocational teacher student of a university or other higher pedagogical institution, who already work in VET school or college. The success of vocational teacher education and training depends on the quality of interaction between tutor, mentor and vocational teacher student.

The European dimension of developing VET teacher education

The above theoretical and empirical findings lead VET researchers, politicians and practitioners to believe that the most appropriate approach for Lithuania could be a competence-based model of VET teacher education. This also enables Lithuanian VET politicians to seek appropriate international support to develop a new VET teacher education system. In the Soviet occupation

period, a parallel model of VET teacher education prevailed. It was fragmented, too academically and theoretically orientated; it did not fit into the frame of today's market economy and is unable to satisfy labour market demands.

From the beginning of independence (1990), many attempts were made to analyse the experience of VET teacher education in different western countries and in Lithuania (Dienys and Pusvaskis, 1998; White paper: vocational education, 1999; Laužackas, 1999; Pukelis, 1999; Laužackas and Pukelis, 1998; Kucinskas and Kucinskiene, 2000, and others). These theoretical surveys and empirical research exercises came to the conclusion that teaching is based on the practical awareness of VET teachers of how to act in different teaching/learning situations. The consecutive and competence-based VET teacher education model was chosen as the basis for development of VET teacher education as the one best responding to the development of the Lithuania VET system.

In 1997, Vytautas Magnus University (Kaunas, LT) together with Sheffield Hallam University (UK) in the PHARE VET'97 project, started development of a modular programme for initial VET teacher education. The result was a one year modular programme for initial VET teacher education composed from 12 modules targeted at the most important competences necessary to acquire pedagogical qualification for VET teachers. The 12 books for teachers and 12 books for learners in this programme gave a description of programme with requirements for its implementation. A group of VET tutors was trained and then piloted their own modules in a one-year modular programme for initial VET teacher education. Together with the tutors were working mentors - experienced VET teachers - who played a key role in competence-based VET teacher education. The first group of mentors was trained in 1998 in a bilateral Lithuanian (Vytautas Magnus University) and Norwegian (Akershus University College) project. One of the results of this project was a published book for developing mentor counselling skills (Learning and counselling, 2002) in English (2002) and Lithuanian (2003).

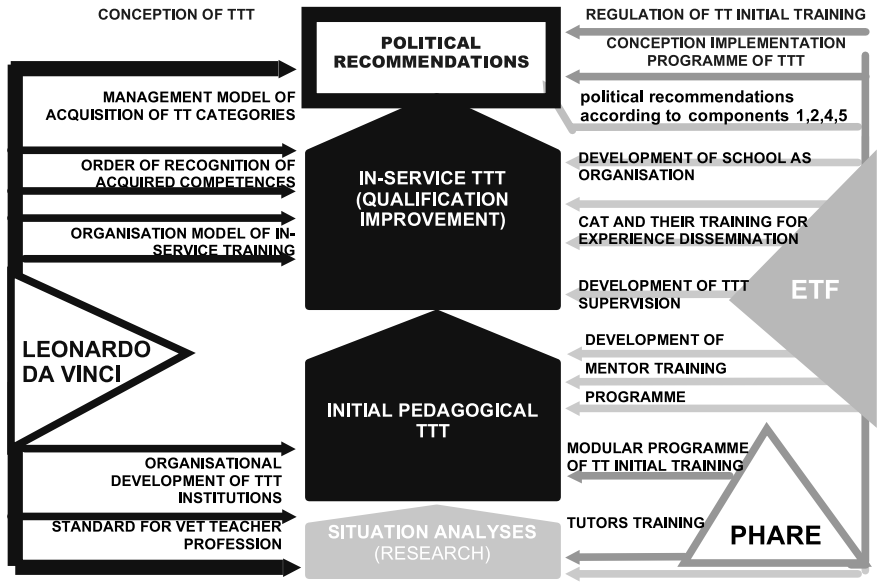
In 1998, an international Leonardo da Vinci project, *Systematic organisation of continuing development of VET personnel*, (1998-2000), started with close cooperation from partners in Denmark, Germany and Holland. This project also reached the conclusion that competence-based VET teacher education is most relevant to today's labour market challenges. The framework of the VET teacher education professional standard (2002) was designed based on lifelong learning and competences which VET teachers must posses to be able successfully to compete in the labour market.

The competence-based VET teacher education approach was also proved in another international donor cooperation project from the European Training Foundation (ETF), Denmark and Finland. *Reshaping the focus and structure of teacher/trainer training (TTT) in Lithuania and Latvia* (1999-2002) was coordinated by Vytautas Magnus university, where the proposal for vocational teacher education and training in Lithuania was developed (Laužackas, Pukelis and Pundziene, 2002) and the VET teacher professional standard was corrected according to the learning needs of a lifelong learning perspective of continuing professional development. The horizontal VET teacher career path was designed on the basis of different concrete competences needed at separate stages of professional development. The objectives and learning outcomes of the PHARE VET'97 modular programme were adjusted in line with the corrected professional standard for vocational teachers. The mentor training programme was developed, the first group of mentor educators prepared and a second group trained. The mentor's book was published as a handbook for those working in the initial modular programme. Regulation for initial pedagogical education and training of vocational teachers/lecturers was developed (2002). All these documents were accepted and confirmed by the Collegium of Vocational Education and Training at the Ministry of Education and Science. The result of these political decisions was allocation of appropriate funds by the Ministry of Education and Science (MoES) to start practical implementation of initial vocational teacher education and training. The first group of 32 VET teachers successfully finished the modular programme for initial VET teacher education in April of 2004 and a third group of mentors was trained in 2003 using only national intellectual and financial resources. A second group of VET teachers are in the process. The systematic ap-

proach to international support for development of VET teacher education in Lithuania is presented in Figure 2 (CAT - change agent team).

However, Lithuanian financial and intellectual resources are still not sufficient to cover demand for didactical education of VET teachers. Using European Union structural funds could be a good way of satisfying this demand. Continuing professional development of vocational VET teachers is currently covered by expert groups from economic sectors (EGEB) and includes the design of VET teacher education standards in the relevant vocational subject.

Coordination of international projects targeted for development of VET teacher education system in Lithuania **Figure 2**



Vocational teacher education and training strategy in Lithuania

The national strategy for pedagogical education and training of Lithuanian vocational teachers was developed on the basis of specific approaches:

❑ integrating theoretical and practical studies at the vocational teacher's workplace (work and learning integration at workplace) or close interaction between university (or higher school) and VET school, since previous VET teacher education was too academic;

❑ turning VET schools into learning organisations to enhance organisational development within schools from 'vertical' to 'horizontal' structure, converting VET schools to university equal partners;

❑ implementing action reflection learning via modernisation of teaching/learning methods to enhance independent student learning activity;

❑ opening up VET schools to the world of work, emphasising close cooperation with the social partners and building up national and international networks among all institutions and key actors involved in vocational teacher education.

The principles of VET teacher education and training are formulated according to the peculiarities of political, economic, social, cultural and curriculum, organisational and personal factors and possibilities of their interaction. VET teacher education and training in Lithuania adheres to the following principles:

❑ decentralisation, meaning that all teachers have access to education and training with regard to development of pedagogical qualification needs, regional choice and other aspects; possibilities for formal, non-formal and informal learning, involvement of broad range of vocational institutions;

❑ openness, meaning coordination of individual and labour market needs, learning accessibility, coherence of initial and in-service training, qualification demand and supply at national and international levels, interests of social partners and other social groups, financial and other resources, general, academic and vocational education;

❑ systematisation, meaning that the system of VET teacher education and training guarantees the conditions for lifelong learning and gradual acquisition of the qualification categories and possibilities for professional development;

❑ compatibility, meaning that the system of VET teacher education and training is constantly renewed and changed to satisfy the demands of the world of work, the educational system and teacher continuing professional development needs, so that when they choose VET teaching as a profession, they can acquire and constantly upgrade their vocational and didactical qualification;

❑ cooperation, emphasising the demands of different interest groups of VET teachers in planning and organising their continuing professional development needs with regard to different competences of participants. Co-operation assures vertical and horizontal links among the different institutions of VET teacher education and training and relations with the social partners, schools, governmental and non-governmental organisations, partners for international projects;

❑ particularity, highlighting the singularity of VET teacher education and training principles, organisation and content in comparison with other types of teacher education. The fact that there is a great variety of VET programmes and demand for a small number of VET teachers (in Lithuania) in different vocational subject fields are given consideration. General conformity and national peculiarity are considered in the international context.

The main parameters of vocational teacher education and training are:

❑ a professional standard for VET teachers;

❑ a consecutive model for VET teacher education and training;

❑ a curriculum of initial and continuing pedagogical development based on professional standard for VET teachers.

The professional standard for VET teachers was developed on the basis of lifelong learning and covers a complete horizontal career path encompassing five vocational teacher qualification categories: junior vocational teacher, vocational teacher, senior vocational teacher, vocational teacher methodologist, vocational teacher expert. The VET teacher professional standard describes the goals, the main fields of activities and didactical competences of each VET teacher qualification category (Professional standard for vocational teacher/lecturer, 2002). The standard is the basis for planning, implementing and evaluating the curriculum of VET teacher education and training. The didactical competences defined in the standard are divided into five areas:

❑ personnel development competences;

❑ planning of module curriculum, teaching and development competences;

❑ vocational teaching programme design competences;

❑ school and educational system development competences;

❑ vocational subject development competences.

The standard describes didactical competences related to the first four areas, divided according to qualification categories for vocational teachers. The fifth area of competences is not described in the standard since it is related to various vocations. Their descriptions are under development by various expert groups of economy branches (EGEB). Moreover, this part of vocational teacher qualification, taking into account the rapid development of science and technology, is undergoing continual change and therefore must be under continuous development and improvement.

The consecutive model of vocational teacher education and training includes four consistent stages (Figure 3). In the first stage (this is more desirable than compulsory) a prospective vocational teacher finishes vocational school, acquiring the first vocational qualification targeted to the concrete labour market needs (it takes from two to three years). In the second stage, the prospective vocational teacher acquires a higher vocational qualification (this takes from three to six years). In the third stage, the prospective vocational teacher obtains a minimum three-year practical work experience in the field of the acquired vocational qualification. At the fourth stage, the vocational teacher begins to work in the same vocational programme of VET school, which corresponds with his/her vocational qualification. During the first two years of work in VET school, he or she acquires didactical and complete pedagogical qualification. This covers only the fourth stage; the fifth stage illustrates continuing professional development based on lifelong learning. In the sixth stage, the vocational teacher could graduate from a master's, and later doctoral, programme, acquiring higher professional or researcher qualifications.

The curriculum for initial didactical training of VET teachers is based on the competences of a vocational teacher qualification as described in the standard. This qualification level is obligatory and enables the teacher

or lecturer to undertake independent work in school. The curriculum refers to an equivalent combination of theoretical and practical studies in higher school and development of practical pedagogical skills in VET school. It reflects the present educational level of VET teachers, concrete didactical competences and accessibility of studies (taking into account place and time of studies), and active involvement of employers and other social partners in planning, implementing and evaluating the curriculum. The tutor and mentor roles are crucial.

Evaluation of the achievements of initial pedagogical training is based on the portfolio principle, creating prerequisites for accrediting competences already possessed. The final assessment of the achievements of an individual VET teacher student is accomplished by summarising the results of the portfolio, the experimental lesson and the final work.

The curriculum for in-service education and training of VET teachers depends on scientific, technological and pedagogical innovations, plus the acquisition of competences targeted to higher vocational teacher category and to individual needs or interests. Hence, there could be three types of module for in-service VET teacher education and training:

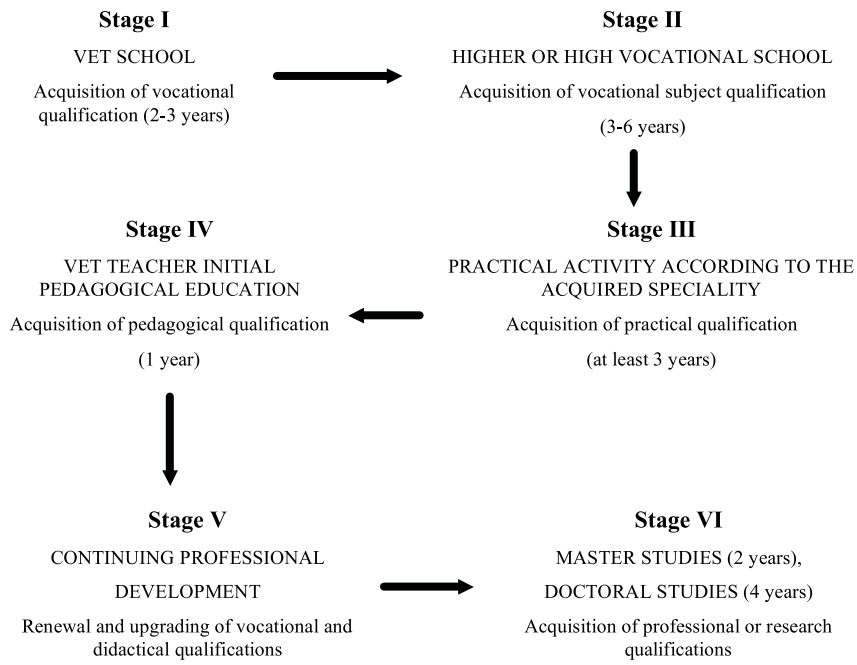
- curriculum for developing strategic competences that correspond to the latest strategic scientific and practical innovations;
- curriculum for developing competences necessary for achieving higher qualification categories, described in the VET teacher professional standard;
- curriculum for developing individual competences, which indicates the VET institution or teachers' personal development needs.

Conclusions

VET teacher education and training in Lithuania adhere to the principles of decentralisation, openness, systematisation, compatibility, cooperation and particularity.

The main parameters of VET teacher education and training are a professional standard for the VET teacher, a consecutive model for VET teacher education and training, and a curriculum for initial and in-service didactical education based on the professional standard.

General scheme for vocational teacher education and training in Lithuania **Figure 3**



The Lithuanian strategy for vocational teacher education and training is also based on other documents, such as the Regulation for initial pedagogical education and training of vocational teachers, Action plan for implementation of strategy of vocational teacher education and training, etc., approved by the Ministry of Education and Science.

A crucial role in more effective VET teacher and vocational education lies in developing prior non-formal and informal learning assessment methodology, and tools targeted to measure concrete competences indicated in the VET teacher professional standard.

The Lithuanian VET teacher education strategy, using a consecutive and competence-based model as a result of a series international projects, has the main documents, intellectual and human resources needed to begin work on didactical education. However, practical implementation in the VET system development still lacks financial resources. Appropriate use of structural funds could increase the level of practical implementation.

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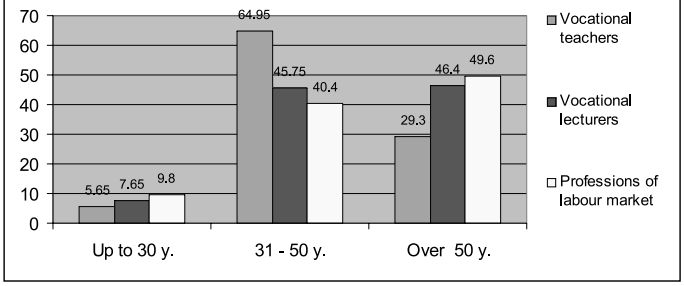
Key words

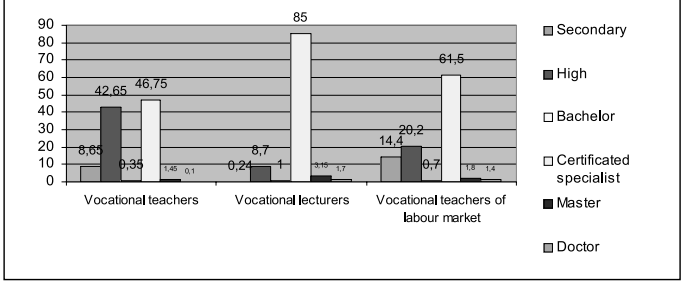
Vocational education,
teacher training,
standard,
personal development,
vocational qualification
and education system

ANNEXES

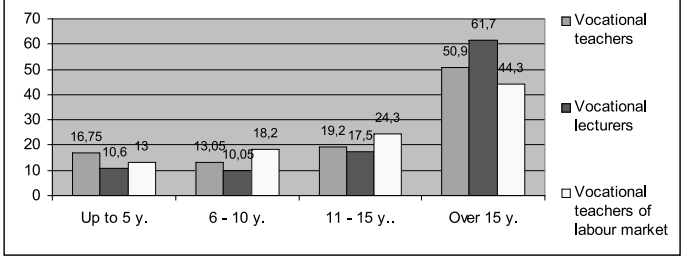
Age of vocational pedagogues (VP) — Annex I



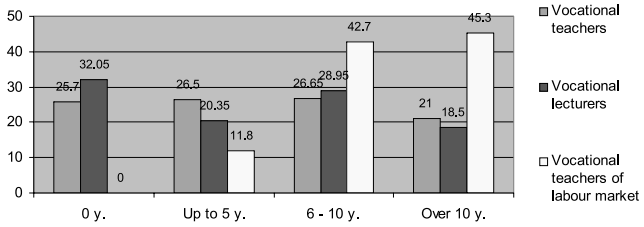
General background of vocational pedagogues (VP) — Annex II



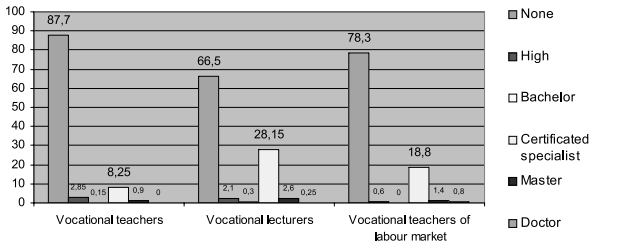
Pedagogical experience of vocational pedagogues (VP) — Annex V



Experience of work in industry (field experience) of vocational pedagogues (VP) — Annex III



Pedagogical background of vocational pedagogues (VP) — Annex IV



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Reform in Polish vocational education

The article presents the essential concept of reforms, implemented in Poland's education system since the early 1990s and some of their outcomes. Special attention is paid to one particular aspect of the reforms, i.e. structural diversification of the system, leading to diversification of education levels and corresponding diplomas. The article argues that this approach promotes better access to education since it takes account of young people's capabilities and educational aspirations. The article refers to selected aspects of the structural reform of post-primary education and its fundamental assumptions; it also highlights some effects of the implemented changes. Looking at the process of implementing a two-cycle structure of education (bachelor's and master's) in tertiary education, attention has been drawn to the difficulties connected with the social acceptance of the first degree of studies (bachelor's = licencjat), which, in the official rhetoric, have been referred to as vocational studies.

Background

The scope and nature of reforms in education, from primary through secondary to post-secondary level, are different from those in higher education. An important distinction between the two areas is the degree of independence in defining educational policies.

Primary and secondary education level is characterised by centralised management, although it should be stressed that schools have been given a certain degree of freedom in this respect (Education Act of September 7, 1991). Meanwhile, particular schools had to wait for favourable conditions facilitating a comprehensive reform of the system as a whole. As a result, implementation started in September 1999.

The Higher Education Act of 12 September 1990, gave HE institutions the right to define their own educational and research policy, limiting the competences of central administration ([1]). The changes, inspired by the academia since the 1990s, have led to radical structural and curricula transformations over a relatively short time. As a bottom-up process, it has not been progressing evenly, even though it has spread in the majority of HE institutions.

Despite the differences and the time shift, the reform and changes which have been taking place in the two areas seem to have some common traits, partially rooted in governmental education policy. According to that policy, the education system should help to ensure equal opportunities for young people and to expand the coverage of secondary and higher education. This means, among others, the need to adjust the system to the diverse abilities of the young and guarantee them an opportunity to continue education at a higher level, depending on their educational aspirations. At the same time, there is a need to differentiate the educational offer and to establish closer links between different levels of education, especially secondary and tertiary.

Documents formulated by international bodies seem to point to diversification as a way to enhance credibility in education quality (ISCED, 1997). A view is expressed that shorter education cycles ensure better cross-national comparability of academic degrees and occupational competences (Bologna Declaration, 1999).

The changes in HE occurring in recent years have led, in most countries, to an unparalleled diversification of education levels, diplomas, titles and degrees. In the context of unifying Europe '... this jungle of degrees and systems is the biggest obstacle to mobility in Europe. ... there are even more structures than countries in Europe: in some cases there were up to 100 different academic qualifications found within a single country' (Wende, Westerheijden, 2002, pp. 118-119). In the light of ideas set out in the Bologna Declaration, this factor hampers the development of the European higher education area because it makes cross-national comparisons difficult and sometimes even impossible.

The Bologna Declaration, signed in 1999 by 29 countries, provided Europe-wide momentum for efforts to streamline the structure and adjust the nomenclature associated with diplomas, professional/vocational titles and academic degrees. In keeping with the declaration, many countries from outside the British tradition have introduced or are now introducing bachelor/master programmes (Westerheijden, 2002; Two decades of reform in higher education in Europe: 1980 onwards, 2000).

It is assumed that comparisons of curricula leading to a bachelor degree are more feasible than comparisons across uniform master's curricula. Moreover, the declaration suggests that the first level (bachelor) should be closely adjusted to market requirements.

The article presents some measures intended to facilitate implementation of the existing guidelines, with regard to local conditions and international perspective.

The Polish educational system: reform and changes

Two aspects of the reform seem to be essential: structural changes and establishing standards rendering possible comparison of qualifications, recognition of certificates and diplomas which would certify completion of each stage of education.

The key features of the structural reform of the education system and examination rules are briefly described below ([2]).

Obligatory common education has been extended to nine years. The former eight years of primary education have been replaced by two levels: six years of primary school and three years of gymnasium. The gymnasium constitutes the lower secondary level of education, providing advances in broad profiles and helping pupils to develop social skills and abilities.

Diversified post-gymnasium education includes six types of schools. A comprehensive secondary school plays two roles:

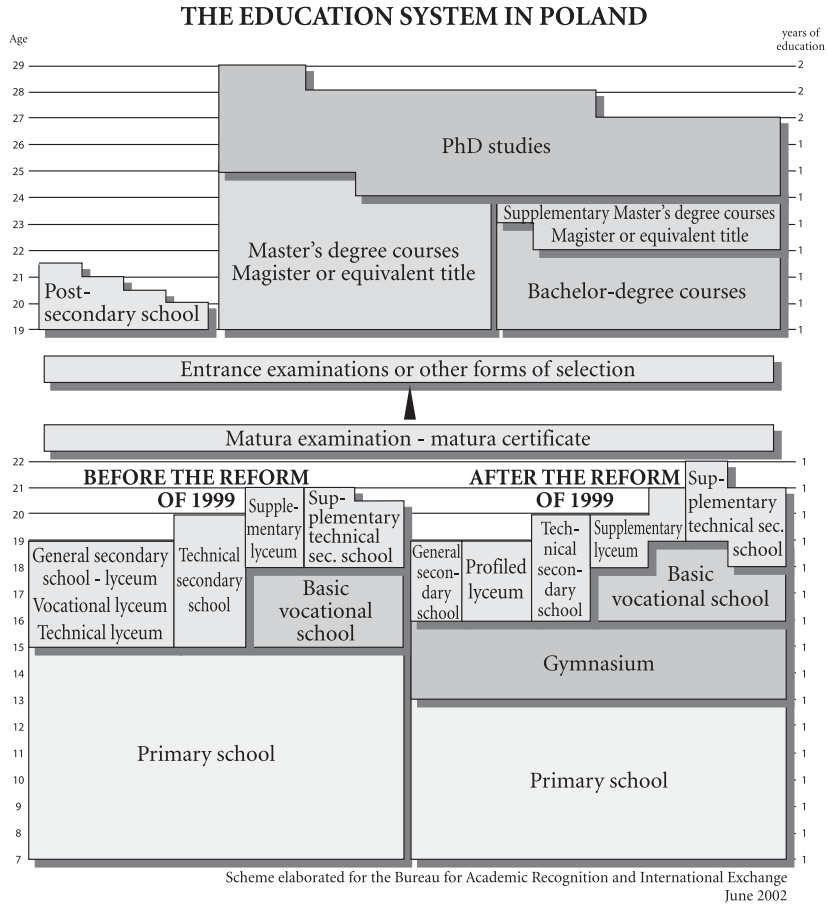
- three-year general secondary school, leading up to matura examination, intended for graduates of post-gymnasium schools, who wish to continue their education at higher level;

- two-year supplementary lyceum, for graduates of basic vocational schools who wish to obtain a complete secondary education.

Among the remaining types of school, three offer a diploma which confirms vocational qualifications:

- four-year technical secondary school, awarding a vocational qualification diploma; the matura certificate can be obtained after graduation from the fourth grade of the school;

Figure 1



- two to three-year basic vocational school, awarding a vocational qualification diploma. Completion of the supplementary schools (iii and iv below) allows graduates to take the matura examination;

- three-year supplementary technical secondary school for graduates of basic vocational schools. The school awards a vocational qualification diploma and leads up to the matura examination;

- three-year profiled lyceum, providing general vocational preparation, leads up to the matura examination as well.

The Scheme has been elaborated by the Bureau for academic recognition and international exchange reporting to the Minister of National Education and Sport http://www.buwiwm.edu.pl.

The reform of vocational education was founded on the principle of broadly-profiled education, which is intended to support flexibility and vocational mobility

([1]) The government retained control directly through the Ministry of Education (now Ministry of National Education and Sport) or delegated competences to representative bodies of the academic community. Among other things, the latter retained control over minimum curriculum requirements and conditions for establishing new areas/subjects of study. Compliance with the regulations in this respect has been entrusted to the National Accreditation Committee (PKA) since January 2002.

([2]) Details on the reform of education, its stages and particular focus on vocational training are presented in annual reports prepared under the National Observatory programme funded by the European Training Foundation (See National Observatory, 2002).

throughout the career. The reform policy promotes general education and increases its share in vocational post-gymnasium schools.

One of the positive result of the structural reform in post-gymnasium education is the promising attempt to eliminate 'the culde-sac of education', i.e. basic vocational education, pursued by a significant proportion of young people ([3]). Those narrow-profile schools virtually deprived teenagers of the chance to obtain a matura certificate and to continue their education at a higher level. Graduates of basic vocational schools are the highest category of the unemployed in Poland.

In 2002, 77 % of gymnasium graduates attended schools which offered various types of complete secondary programmes; 47 % of gymnasium graduates had chosen general secondary schools, intended for young people who wish to continue their education. Those who decide against going to university can train for an occupation in post-secondary schools. In recent years, there has been dynamic growth at this level of education, especially in the non-state sector, with up to 2.5-year post-lyceum schooling resulting in a vocational qualification diploma.

The structural diversification runs in parallel with the standardisation of examination requirements. The previous principle, which provided for internal examinations only, has been replaced by examinations with elements of external assessment. Alongside the structural changes, this is the second important feature of the reform in education, implemented since 2002.

In 1998, the Minister of National Education and Sport entrusted the Central Examination Committee and regional examination committees with the standardisation of external examinations. At present, nearly all levels of education end with an examination (or a test) based on uniform requirements. The test conducted in the last grade of the six-year primary school is intended to provide feedback for students, showing them the areas where their performance has been satisfactory and those which require harder work.

The school year 2002/2003 was the first year when admissions to post-gymnasium schools depended, among other factors, on the results of indicative examinations conducted at the end of gymnasium education. The examinations, conducted in accordance with unified nation-wide requirements, were designed to assist students in making the right decision when choosing a post-secondary school. The examinations were held by regional examination committees.

One example of an external examination in Poland is the exam confirming vocational qualifications. Since 2004, graduates of vocational schools have had the opportunity to confirm their qualifications with an exam (theoretical and practical) organised by authorised centres, e.g. schools, educational establishments or employers. Standard requirements are developed for specific occupations listed in the Classification of occupations for vocational education.

The matura also represents a complete departure from the previous practice of internal examinations in favour of an external assessment system. One of the goals of the new matura format was to replace (in whole or in part) higher education institutions entrance examinations. Senates in most public higher education institutions decided to recognise the matura results but, in many cases, additional admission requirements were defined. Matura examinations in the new format will be held for the first time ever in 2005.

At this stage of the reform, it is too early to assess its outcomes. It is also difficult to assess the external evaluation system or efforts to improve transparency of results. Considerable adjustments to original assumptions and delayed implementation of certain elements of the reform distort the rhythm of work and logical sequentiality. As an example, in the preparatory work for external examination confirming vocational qualifications, examination standards were developed before the vocational qualification standards. However, such occurrences are hard to avoid with a comprehensive reform such as this and they are an inevitable element associated with the complexity of the entire undertaking.

Transparency through diversification in higher education: Bologna Declaration and status quo

The essential changes associated with structural diversification of diploma programmes

([3]) In 1989, education in those schools was continued by 45.9 % of primary school leavers; in 1996, the respective percentage was 34 % and in 2002, 23 % (Education in the school year 2002/2003, Polish Central Statistics Office, GUS, Warsaw 2003).

in Poland occurred in 1991-1994, i.e. long before the Bologna Declaration. Unified at that time, the system began to transform into a multi-level structure.

Alongside the five-year uniform and theory-focused master's degree programmes which prepare students for research work or highly qualified professions (e.g. doctors, teachers, lawyers), a two-level system structure has been gradually implemented. The first level comprises three-year programmes leading to the licentiate title and four-year engineering programmes (equivalent to bachelor degree); the second level is a two-year supplementary master's degree programme.

Programmes leading to a licentiate title were the first ones to arrive in academic institutions of higher education. Most universities were language teaching colleges with an independent organisational status. Short programmes offered a chance to increase the headcounts of first year students (the essential ratio considered for allocation of state funding) and ensure higher subsidies. For academic institutions, such programmes were a way to survive the hardships of reduced government funding rather than a response to public demand or the needs of an economy in transition.

The non-public higher education sector has been developing in parallel with these changes in public education. Non-state HE sector was, and still is, based on short, mostly three-year licentiate programmes, vocational by definition, and, as such, became the starting point for Poland's binary system within higher education.

In legal terms the concept of higher vocational education first appeared in 1997, when the Act on higher vocational schools of June 27, 1997 came into force. Under this act ([4]) the binary system was legally sanctioned. It paved the way for public schools which responded to local market needs ([5]).

Data provided in Table 1 reflect the diversification of higher education levels in the past decade. Between 1994 and 2002, the share of students in licentiate programmes in the total number of students rose from 25.4 % to 43 %. Hence, this phenomenon has had a considerable impact on the overall picture of higher education in Poland. Notably, while the proportion of students in master's and licentiate programmes in the public sector tended to stabilise, the proportion in master's programmes in non-public universities has been growing steadily since the 1998/99 academic year (Table 2). This reflects the aspirations of the non-public HE community to assume attributes of academic institutions (a phenomenon known as academic drift), the right to conduct master's degree programmes being one of such attributes.

Students by level of higher education **Table 1**

Level of study	Academic years / students (%)						
	1994/95	1996/97	1997/98	1998/99	2000/01	2001/02	2002/03
Uniform master degree programmes (5 years)	71.2	58.3	53.5	49.3	44.8	44.0	43.4
Supplementary master-degree programmes (2 years)	3.4	6.0	7.1	8.4	10.8	12.4	13.6
Licentiate/engineering programmes (3-4 years)	25.4	35.7	39.4	42.3	44.4	43.6	43.0

Author's own calculations based on yearbooks: *Szkoły wyższe w roku szkolnym 1994/95 -1996/97* [Higher education establishments in 1994/5 -1996/7], *Szkoły wyższe i ich finanse w latach 1997-2002* [Higher education establishments and their finances in 1997-2002],- Polish Central Statistical Office GUS, Warsaw, 1992-2003.

According to the official rhetoric, all first level of higher education programmes (e.g. leading to licentiate/engineer degree) are considered vocational. Otherwise, the programmes are supposed to have:

(a) industry-orientation and a significant proportion of specialist knowledge in curricula;

(b) practical training as an important component;

(c) a shorter period of study (usually three-four years).

Are there enough reasons to justify this 'aggregated' view on licentiate/engineer programmes ([6])?

The question arises whether programmes with such varied origins can have any congruent teaching profiles and, moreover, a vocational profile, as suggested by the legal regulations? Further on, does the position of such programmes within academically focused institutions ensure the market-orientation expected of vocational studies? Doubts stem from the fact that the academic community is commonly thought to perform poorly in teaching practical skills, whereas academic education is focused on knowledge disciplines (see Barnett, Dunne and Carre, 1999).

([4]) This direction of systemic transformation (transition from integrated to binary HE systems), initiated in the 1960s, still finds supporters today (Teichler 1999).

([5]) After the act became effective, non-state HE establishments have also been founded on this basis; earlier on, they operated under the legislation applicable to academic institutions. The 1997 Act imposed several detailed requirements (i.e. mandatory 15-week practical training for schools founded under this act) which were not applicable to academic institutions.

([6]) Further on in the text we will use the term *licentiate* to refer to short, three to four-year studies. Approximately 2/3 of students in such programmes are enrolled in licentiate.

Students in master's and licentiate/Engineering programmes by state and non-state HE institutions (%) **Table 2**

	Level of study	Academic years / students (%)						
		1994/95	1996/97	1997/98	1998/99	2000/01	2001/02	2002/03
Total	Master's	74.6	64.3	60.6	57.7	55.6	56.4	57.0
	Licentiate/ engineer	25.4	35.7	39.4	42.3	44.4	43.6	43.0
State	Master's	77.5	72.7	72.1	71.8	70.5	70.3	69
	Licentiate/ engineer	22.5	27.3	27.9	28.2	29.5	29.7	30.4
Non-state	Master's	38.6	18.3	16.8	17.7	20.6	23.6	26.4
	Licentiate/ engineer	61.4	71.7	83.2	82.3	79.4	76.4	73.4

Author's own calculations based on yearbooks: *Szkoły wyższe w roku szkolnym 1994/95 -1996/97* [Higher education establishments in 1994/5 -1996/7] *Szkoły wyższei ich finanse w latach 1997-2002* [Higher education establishments and their finances in 1997-2002],- Polish Central Statistical Office GUS, Warsaw 1992-2003.

In public perception, government-funded academic institutions carry students in licentiate programmes to the level corresponding to the first degree of university studies with a theoretical focus (e.g. bachelor degree, academically oriented), whereas programmes offered by other types of HE institutions are thought to have a vocational profile.

There has been an attempt to validate these views in empirical research ([7]) based on opinions collected from students, rectors and employers. Below are the findings from surveys conducted in 2001 with third year full-time students in licentiate programmes ([8]).

The problem is illustrated in analysis of students' expectations of licentiate programmes set against the chances of those expectations being fulfilled.

Despite the polarisation, the prevalent view is that the main goal of three to four-year programmes is to prepare students to work in the respective occupations (Table 3). A significant proportion of those surveyed (40 %) see licentiate studies as the first level of general studies, which enables students to continue their education. Notably, this duality of expectations, sometimes parallel but often intertwined, occurs regardless of the place where the expectations are put to the test: in a vocational or an academic establishment.

Students who are most inclined to enrol in such programmes are those who have previously failed entrance exams to master's studies. This means that they see licentiate as their 'second chance'. Hence, students at short programmes have postponed but not abandoned their educational aspirations. From their perspective, the three to four-year programmes are a way to achieve a master's degree. Consequently, they expect to acquire general education, which will enable them to continue their studies since the master's degree continues to be highly valued by the public.

A significant percentage of licentiate-to-be (more than 80 %) declare their willingness to continue their education (Table 4). At the same time, there is a clear trend to combine education with career, which explains the dual student perception of licentiate: an introduction to a job with an option to continue education, preferably in a public, academic-type establishment. This model seems to be most popular among students of non-public schools and public vocational schools.

The survey shows that students' expectations - irrespective of what they mean - are most effectively fulfilled by state vocational schools. Non-state schools are at the opposite extreme: a significant percentage of those surveyed negatively viewed their performance in preparing for career or education at higher level. Public academic establishments are widely recognised for fulfilment of academic goals but perform less effectively with regard to job preparedness (Table 5).

Higher vocational schools are more likely to address the needs of students who are primarily focused on learning an occupation and gaining some practical training. Conversely, academic, especially state, institutions will be more likely to fulfil the aspirations of young people who seek a general education even though they also offer industry-focused programmes ([9]).The question of fulfilling the aims of the Bologna Declaration has a two-part answer: fulfilment is broad in the quantitative sense but not very transparent at the qualitative level. We are dealing with a fairly advanced diversification of curricula but there are considerable problems with identifying qualifications confirmed by a licentiate diploma. In practice, some of the programmes concluding with the licentiate title - mostly offered in state academic institutions - are a counterpart to the first level of general studies, while some of them are vocational. The aims and objectives of the programme are not clear

enough to be explicitly understood by students. Consequently, employers are not certain whether a licentiate confirms higher education qualifications or perhaps just post-secondary education.

Those difficulties are less conspicuous at a local level. There are extensive information campaigns run by individual HE establishments, with media support. There are also popular rankings of schools and departments which offer a general idea of what to expect of school X or school Y regarding the education it provides.

Undoubtedly, at an international level, Polish licencjat and its underlying educational content would become clearer if a distinction were introduced between general studies and industry- or sector-oriented studies preparing students for a specific career. Furthermore, this solution would introduce greater clarity of diplomas, confirming an academic degree in the former case and a vocational title in the latter.

However, such changes would require amendments to current legislation, a time-consuming process with unpredictable outcomes. Thus, supplements to diplomas, listing the subjects and the associated skills, seem to be a more realistic solution.

Conclusions

The effects of the structural reforms in Polish education, initiated in the 1990s, are evident only in higher education. At lower levels, adopted measures will produce an outcome in the longer term because the new structure in post-gymnasium education was started quite recently, i.e. in 2002.

However, the first positive effects of efforts towards system integration deserve mention. The academic community, which had previously defined its own admission rules, generally accepted the idea to replace matura and entrance exams with a single exam (new matura) based on transparent standards developed as a collaborative effort between secondary schools and higher education institutions.

Essential goals of licentiate/engineering programme: students' opinions by type of HE establishment (%) **Table 3**

Top-of-mind goals	State vocational schools	Academic establishments	
		State	Non-state
Preparation for work	56.3	53.9	54.2
First level of general studies	40.4	40.2	41.5
Other responses	3.3	5.9	4.3

Students in licentiate/engineering: plans after graduation by type of establishment (%) **Table 4**

Plans after graduation	State vocational schools	Academic establishments	
		State	Non-state
Supplementary master's degree studies	31.4	42.7	25.7
Supplementary master's degree studies combined with a job	55.2	34.8	63.1
Job	2.5	4.7	1.4
Other plans	1.5	1.8	1.1
Not sure yet	9.4	16.0	8.7

At higher education level, the introduction of two-cycle studies alongside uniform five-year master's degree academic programmes (preparing students for further research or highly-skilled professions) improves young people's opportunity of further education as it takes account of different levels in educational and academic abilities.

However, it should be noted that licentiate (equivalent to a bachelor's degree, both generally and vocationally oriented) is a new category, still struggling to attain social legitimacy in Poland. University education and master's degrees continue to be highly valued by the public. The new vocational sector, embracing state and non-state higher vocational institutions, is still seeking its identity. A significant proportion of those institutions are inclined to follow the ethos of academic institutions (academic drift) but the conditions in which they operate, especially problems with finding qualified staff, seriously limit these aspirations.

Essential goals of licentiate/engineering programmes and their fulfilment: students' opinions by type of establishment (%) **Table 5**

Answer	State vocational schools	Academic establishments	
		State	Non-state
Job preparedness			
Very good	13.3	7.5	3.8
Quite good	76.3	67.4	63.1
Very bad or none	10.4	25.1	33.1
Preparation for second level of higher education			
Very good	5.1	9.2	5.3
Quite good	79.3	80.2	73.4
Very bad or none	15.6	10.6	21.3

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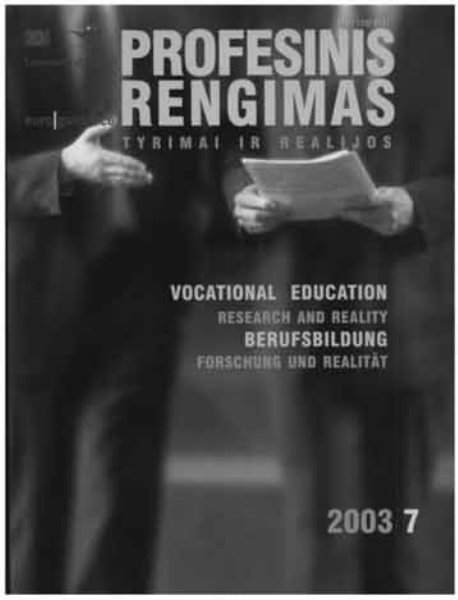
Key words

Secondary education,
university studies,
non-university higher education,
certification of competences,
vocational qualification,
academic degree

VOCATIONAL EDUCATION: RESEARCH AND REALITY



Vocational education and training journals have been published in all the countries of West Europe. In **Lithuania**, it is the first publication of this kind. Increasing world integration of science and activity has been the main factor that caused scientists and politicians to devote more attention to vocational education and training which aims at responding to complicated questions raised by contemporary society: how do human existence and human role change in the context of social and economic changes in the world? What is the mission of education and vocational education and training with regard to continuous learning and development of a democratic society? What principles should vocational education and training policy be based on? What structure, contents and methods of vocational education and training best satisfy the paradigm of meaningful life of a human?

This Journal has appeared as the result of a long-term co-operation between the Centre for Vocational Education and training at Vytautas Magnus University and many countries from West Europe, firstly, Hohenheim University, Germany. Therefore, even six vocational education and training scientists from foreign countries are the members of the editorial board of the Journal. One of the major dispositions of the editorial board is to devote equal amount of space in the Journal for both - Lithuanian and foreign authors - and this will open wide perspectives for international scientific discussion. The fact that scientific articles will be printed in three languages, Lithuanian, English and German, creates a prospective scientific precedent to creatively adopt different vocational education and training experience, traditions and theories.

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The journal "Vocational Training: Research and Realities" is published at least once a year. Scientific publications are published in two languages – Lithuanian and foreign (English or German). The materials of the second part (realities of vocational education and training) are published in the Lithuanian language, except when the material is scientifically significant (in English).

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Europe International

This section has been prepared by
Anne Waniart,
and the Documentation Service with the help of the members of the European network of reference and expertise (ReferNet).

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.

Information, comparative studies

Governance and marketisation in vocational and continuing education / Husemann, Rudolf and Heikkinen, Anja (eds.)
New York: Peter Lang Verlag, 2004, 214 p. (Studien zur Erwachsenenbildung, 21)
ISBN 3-631-50533-7

Globalisation and individualisation, decreasing public means, political strategies of decentralisation, increasing participation of social groups and growing markets are discussed as main aspects of the current changes in vocational and continuing education. A comprehensive and integrating theoretical concept of analysis and understanding of these changes is widely missing, but necessary for a supra-national level of observation and comparison. The book includes a survey on this segment of education in several European countries, Australia and the USA. The folio of analysis and comparison is given by the concept of governance, which allows a theoretical and empirical approach to the field of vocational and adult education. The contributions give an outline of governance and marketisation strategies from an international, national and sectoral perspective and present a frame of perception and interpretation on a general level.

Researching widening access to lifelong learning/ ed. by Michael Osborne, Jim Gallacher and Beth Crossanp.
London: Routledge, 2004, 256 p.
ISBN 0-415-32236-7

The first section of the book comprises research studies from around the world, reflecting the diversity of contexts in which widening access is researched, and considers issues central to the access debate, including different understandings of the concept of access, organisational and structural change, curriculum development, entry policies, performance and retention and labour market outcomes. The second illustrates a range of diverse and innovative methodological approaches that have been employed by researchers in the field and considers the range of approaches available to researchers. Given the growing concern around the world on the need to combat social exclusion and to improve economic circumstances through access to lifelong learning, this book acts as a unique reference point informing the ongoing debate, exploring the interrelationship between research, policy and practice. It will be essential reading for students, academics and policymakers researching the global phenomenon of widening access to education.

Quality management in vocational training: the use of standards and their different applications / Fernando Vargas Zuñiga, International Labour Organization; Swiss Agency for Development and Cooperation
Montevideo: Cinterfor, 2004, 65 p.
ISBN 92-9088-168-2

Quality is not a new issue in vocational training, but the use of international standards within institutions in order to create new institutional cultures is. In the framework of the implementation of total quality management strategies, more and more Latin American and Caribbean vocational training institutions are using international standards, quite successfully, to certify the quality of their training processes. This document does not intend to be a technical reader for the application of standards. Instead, it seeks to reflect the experiences and motivations of those who both inside and outside the institutions have been in touch with these processes. Theoretical references regarding standardization as the philosophical basis of quality centred on continual improvement have been included in this document. Also, various training institution experiences regarding quality certification are reported and there is a final section where the substantial part of a number of standards regarding institutional work is presented.
http://ilo.law.cornell.edu/public/english/region/ampro/cinterfor/publ/papel/12/pdf/papel12.pdf

The learning society in a postmodern world: the education crisis / edited by Kenneth Wain. New York: Peter Lang Verlag, 2004, 362 p.
(Counterpoints: studies in the postmodern theory of education, 260)
ISBN 0-8204-6836-3

Lifelong learning has become a key concern as the focus of educational policy has shifted from mass schooling toward the learning society. The shift started in the mid 1960s and early 1970s under the impetus of a group of writers and adult educators, gravitating around UNESCO, with a humanist philosophy. The vocabulary of that movement was appropriated in the 1990s by other interests with a very different performativist agenda emphasising effectiveness and economic outcomes. This change of interest, described in the book, has signified the death of education. The Learning Society in a Postmodern World explores different theoretical resources to respond to this situation, mainly those that propose some restoration of an educated public or, to the contrary, individual self-creation, and uses the works of a broad range of philosophers and thinkers - notably MacIntyre, Habermas, Foucault, Derrida, Rorty, and Baudrillard. In addition, it raises important questions about postmodern and post-structuralist responses to education in the post modern world.

European Union: policies, programmes, participants

A world of learning at your fingertips: pilot projects under the eLearning initiative: / European Commission. Directorate General for Education and Culture
Luxembourg: EUR-OP, 2004, 161 p.

The European Commission eLearning Initiative was launched in May 2000 in order to speed up the effective integration of ICT in the education and training systems in Europe. E-learning is the use of new multimedia technologies and the internet to improve the quality of learning by providing access to resources and services, as well as remote exchanges and collaboration. The eLearning Initiative has four plans of action: the deployment of the necessary infrastructure and equipment for sparking the growth of e-learning; specific training at all levels and particularly for teachers and trainers; the creation of the necessary conditions for the development of quality educational contents and services and hastening the networking and co-operation at European level.
http://libserver.cedefop.eu.int/vetelib/eu/pub/commission/dgeac/2004_0008_en.pdf

Bologna Bergen summit 2005: towards the European higher education area Bologna process
Oslo: Secretariat of the Bologna Follow-up Group, 2004

The Bologna Follow-up Group (BFUG) is composed of the representatives of all member states of the Bologna Process plus the European Commission, with the Council of Europe, the EUA, EURASHE, ESIB and UNESCO/CEPES as consultative members. In its last meeting before Berlin, the BFUG discussed the future steering of the Bologna Process. The process had developed into a range of complex activities based on the common political will of ministers and aimed at strengthening the international co-operation between all member states and partners. In his report to the Berlin Ministerial Conference, Professor Pavel Zgaga stated that the main tasks of the steering structures in the coming years would be: (1) to organise the further follow-up program after the Berlin Communiqué (2) to organise the stock-taking exercise (3) to secure continuity and further clarification of the principles of the Bologna Process (4) to secure close co-operation with relevant stakeholders (5) to prepare the next ministerial conference.
www.bologna-bergen2005.no/

Building skills for the information society / European Commission, Directorate General Information Society
Brussels: European Commission, 2004

In a world where knowledge and information are paramount, European citizens need new skills to adapt to rapidly changing life and work environments and to be able to fully participate in society. Ensuring that everyone can effectively use and benefit from Information and Communications Technology (ICT) in life and work, for accessing information, communicating and learning is now a priority for Europe.
http://europa.eu.int/information_society/edutra/skills/index_en.htm

Delivering Lisbon reforms for the enlarged Union: report from the Commission to the Spring European Council
Luxembourg: EUR-OP, 2004, 73 p.
(Documents COM ; (2004) 29)

This fourth report shows the state of progress made since 2000. it invites the European Council to size the opportunities provided by the economic recovery and by the coming enlargement, and to give the necessary impetus to carry the Lisbon strategy forward. it highlights that measures taken at the European level are only part of the formula for putting the Lisbon strategy on the right track; numerous reforms and investments, which are the responsibility of the Member Sates, have yet to be achieved. Among the priorities for 2004: the Member States must now commit themselves more firmly to pursuing the reforms in three priority areas: 1) improving investments in knowledge and networks; 2) strengthening the competitiveness for European enterprises; and 3) promoting active ageing. A new mid-term review will be prepared for 2005.
http://libserver.cedefop.eu.int/vetelib/eu/leg/eurodoc/2004/com_2004_0029_en.pdf

Economics of education in Europe / European Expert Network on Economics of Education
Munich: EENEE, 2004p.

"In the 2000 Lisbon agenda, the European Council documented the need for investments in education and training to close the skills gap as one of the leading challenges facing the European.To address this challenge, it is crucial to understand the processes which underlie the accumulation of human capital, both in the education system and in the process of lifelong learning. The analysis of the economic and social determinants and consequences of education is the realm of the economics of education. Education economists analyse the effects of education on wages, employment, economic growth and social equality. The knowledge created by the economics of education can thus assist governments in optimizing their policies through better-informed choices, thereby helping to reach the goal of sustainable and equitable growth with an encompassing participation of all citizens."
www.education-economics.org/

Improving opportunities for adult learning in the acceding and candidate countries of Central and Eastern Europe / Fragoulis, Haralabos; Masson, Jean-Raymond and Klenha, Vaclav.
In: European Journal of Education, Vol. 39, No 1, p. 9-30 (2004)
Oxford: Blackwell Publishers, 2004
ISSN 0141-8211

"Following a short review of the key aspects of adult education under the previous systems, it highlights the main internal and external driving forces behind the major changes introduced in this field and illustrates the developments in the legislative, institutional and delivery frameworks that reflect those changes. In the light of the new context of employment and working conditions, the article then analyses the emerging patterns of participation in adult learning and the disparities amongst regions, sectors and groups which persist. It concludes with a presentation of selected key issues and challenges lying ahead for these countries, especially in view of their required contribution to the success of the European strategy for a competitive and knowledge-based economy, growth and social inclusion."

Innovation through the European Social Fund
Luxembourg: EUR-OP, 2004, 107 p.
ISBN 92-894-6110-1

'The European Social Fund (ESF) is the main financial tool through which the European Union supports the development of people's skills in order to improve their prospects for

work. For the current programming period 2000-2006, the Fund supports measures to prevent and combat unemployment and to develop human resources and social integration into the labour market. By doing so, it promotes not only a high level of employment and equality between men and women, but also sustainable development and economic and social cohesion. Furthermore, the Fund contributes to putting the European employment strategy's priorities into practice.'
http://libserver.cedefop.eu.int/vetelib/eu/pub/commission/dgesa/2004_0020_en.pdf

Research and technology development in information society technologies: five-year assessment: 1999-2003: interim panel report
Brussels: European Commission, 2004, 60 p.

It is vital for Europe to have an RTD Programme in Information Society Technologies at EU level. The Panel strongly emphasises the need to reinforce collaboration across borders within the EU, as well as collaboration between industrial, governmental and academic institutions. Europe should therefore continue to invest in IST research at a level that can ensure continued leadership and a 'critical mass' of effort in key areas.
http://libserver.cedefop.eu.int/vetelib/eu/pub/commission/dgeac/2004_0009_en.pdf

Validation of formal, non-formal and informal learning: policy and practices in EU Member States / Colardyn, Danielle and Bjørnåvold, Jens
In: European Journal of Education Vol 39, No 1, p. 70-89 (2004)
Oxford: Blackwell Publishers, 2004
ISSN 0141-8211

Gradually, validation of non-formal and informal learning is becoming a key aspect of lifelong learning policies. Lifelong learning, it is asserted, requires that learning outcomes from different settings and contexts can be linked together. As long as learning, skills and competences acquired outside formal education and training remain invisible and poorly valued the ambition of lifelong learning cannot be achieved.

Virtual models of European universities: draft final report to the EU Commission, DG Education and Culture / Ramboll Management.
Brussels: European Commission, 2004, 228 p.

The aim of the study was to analyse the current and potential future use of ICT by European universities for educational and organisational purposes. Four clusters of Universities: 1. the front-runner universities (18%), distinguished by their pre-eminence in all respects, including their level of cooperation with other universities and other suppliers of education., 2. the cooperating universities (33%), characterized by the extensiveness of their involvement in strategic cooperation with both domestic and foreign universities and with other education suppliers. They are, like the front-runners, quite advanced in the integration of ICT into their campus-based teaching, but show a more limited use of e-learning courses and digital services. 3. the self-sufficient universities comprise the largest cluster, encompassing 36% of the universities. Their level of ICT integration in the organisational and educational setting is similar to that of the cooperating universities, but they engage in strategic co-operation with other universities or suppliers of education only to a minimal degree. 4. the sceptical universities (15%) are observed to be lagging behind the rest in almost every respect. They are characterised by a limited use of digital services, limited ICT integration in their on-campus teaching, and a very low proportion of e-learning courses.
http://libserver.cedefop.eu.int/vetelib/eu/pub/commission/dgeac/2004_0010_en.pdf

From the Member States

DK Fremtidens uddannelser: den ny faglighed og dens forudsætninger / Henrik Busch, Nikolaj Frydensbjerg Elf og Sebastian Horst. Undervisningsministeriet - UVM, Uddannelsesstyrelsen
Copenhagen: UVM, 2004. (Uddannelsesstyrelsens temahæfteserie, nr. 2-2004), 94 p.

This publication contains a short analysis and a number of concrete recommendations for educational political initiatives with the aim of ensuring professionalism and its prerequisites in the entire educational system. The three authors primarily base their analyses and recommendations on reports from the four working groups appointed by the National Education Authority. In the period 2001-2003 the working groups met to describe the prerequisites for the new professionalism in the education of the future. The working groups focused especially on the four teaching subjects mathematics, Danish, foreign languages and natural sciences.

DE Arbeitsprogramm 2003 des Bundesinstituts für Berufsbildung / Hildegard Baarß [et al.] [2003 Federal Institute for Vocational Training - BIBB - activity report]
Bonn: BIBB, 2003, 292 p.
ISBN 3-88555-735-5

With the publication of its 2003 report, the BIBB offers insight into its broad range of activities. The publication identifies the Institute's research projects, which are organised into seven research lines, and lists internationally commissioned research and other externally financed projects. It also presents ongoing projects and an overview of current pilot projects. A comprehensive list of key words makes it easy for users to locate research projects and other activities.

EE Estonia: resource dossier / prepared by Helmut Zelloth in cooperation with the Estonian National Observatory. European Training Foundation - ETF, Enlargement and South Eastern Europe Department. National Observatory of Estonia
Turin: ETF, 2004, 23 p.

The purpose of this dossier is to compile relevant information in order to make it easier to transfer ETF know-how and resources to Cedefop, as agreed in terms of the exit-entry approach. This dossier contains: a) A list of resources and documents associated with the process of vocational education reform. These resources are policy-related or analytical documents that highlight areas of principal concern in the reform process. The materials and documents are classified under three main headings - Employment, Education and Training, and General. b) A list of contacts and networks. The contacts are classified according to six main categories - Government Agencies, Development and Research Agencies, Non-Governmental Organisations, Social Partners, Distance Education Centres and Vocational Guidance Institutions. c) A list of key websites of agencies involved in the reform process. d) A chronology highlighting major steps in the reform process has been included in section 5.

ES Empleo autónomo y empleo asalariado: análisis de las características y comportamiento del autoempleo en España / Carlos Iglesias Fernández, Raquel Llorente Herasp.
[Self-employment and salaried employment: analysis of the characteristics and behavioural patterns of self-employment in Spain]
Madrid: Ministerio de Trabajo y Asuntos Sociales, 2004. 163 p.
(Colección Informes y Estudios. Serie Empleo, 19)

This study analyses the dynamics of self-employment in Spain as a vehicle for job creation, in particular as a job-placing strategy for women. It is structured in five chapters. The first chapter is devoted to the evolution and features of self-employment in Spain. The second chapter analyses the evolution of self-employment in relation to economic cycles, transition between jobs, sector change, and new work trends. Chapter three deals

with self-employment as a vehicle for women to join the labour market. The fourth chapter evaluates the measures that have been taken in those labour policies that aim at creating jobs. Finally, chapter five summarises the results of these employment measures and presents a series of proposals for the promotion of self-employment.

FR L'expérience comme moteur de l'orientation tout au long de la vie / Robert Solazzi (ed.)
[Experience as the driving force of lifelong guidance]
In: *L'indécis* Numéro spécial: n° 52 - 53 (mars 2004), various paginations.
Lyon: Trouver/Créer, 2004
ISSN 1273-1269 p.

This issue is devoted to the University of autumn 2003, on the subject of experience as the driving force of lifelong guidance. You will find a presentation of the workshops of the first day, which were directed by experts: validation of the 'acquis' of experience, Experience and ethics, Experience and co-construction of the territorial project, Experience and the method of life histories, scientific experiences and experience of self-development.
www.trouver-creer.org/documents/Ind%E9cis%2052-53%20-%201s.zip

IE Submission of National Qualifications Authority of Ireland to OECD Higher Education Review / National Qualifications Authority of Ireland
NQAI. Dublin: NQAI, [2004], 15 p.

This submission presents a summary of the work of the National Qualifications Authority of Ireland and of the role of higher education awarding bodies. It outlines the national framework of qualifications and its purpose. It discusses the work of the NQAI in the light of the Bologna Declaration and the subsequent meeting in Berlin (September 2003), which supported the development of an overarching European framework of higher education qualifications. The report recommends that the Review Group takes into account the two key sectors of learning with which higher education links - the school sector and the diverse further education and training sector. It also recommends that the Group should consider: the nature and status of professional bodies and the impact these bodies have on higher education; the issue of student support systems; rationalising the roles of the various agencies in further and higher education and examining the roles of providers of further and higher education and training.
www.nqai.ie/authorityoecdsubmission outline41.pdf

MT Malta: resource dossier / prepared by the Enlargement and South Eastern Europe department in co-operation with the Ministry of Education in Malta. European Training Foundation - ETF, Enlargement and South Eastern Europe Department
Malta. Ministry of Education
Turin: ETF, 2004. , 23 p.

The purpose of this dossier is to compile relevant information in order to make it easier to transfer ETF know-how and resources to Cedefop, as agreed in terms of the exit-entry approach. This dossier contains: a) A list of resources and documents associated with the process of vocational education reform. These resources are policy-related or analytical documents that highlight areas of principal concern in the reform process. The materials and documents are classified under three main headings - Employment, Education and Training, and General. b) A list of contacts and networks. The contacts are classified according to six main categories - Government Agencies, Development and Research Agencies, Non-Governmental Organisations, Social Partners, Distance Education Centres and Vocational Guidance Institutions. c) A list of key websites of agencies involved in the reform process. d) A chronology highlighting major steps in the reform process has been included in section 5.
http://libserver.cedefop.eu.int/vetelib/nat/mlt/gov/2004_0001_en.doc

AT The accreditation model: policy transfer in higher education in Austria and Britain / John Pratt
[S.l.]: Symposium Books, 2004, 300 p.
ISBN 1-873927-74-6

In 1993 the Austrian Government introduced legislation to create a new "Fachhochschule" (FHS) sector of vocationally oriented higher education. This established a new kind of body - the Fachhochschulrat - to 'accredit'

courses and eventually to designate institutions. The Fachhochschule policy appears to have been highly successful. The introduction of this 'accreditation model' was remarkable, in that it drew on experience of the Council for National Academic Awards and polytechnic policy in Britain - a country with a very different tradition in higher education and with different constitutional context. The model was a radical departure from the Austrian tradition of central political control and was, controversially, favoured over more obvious alternatives. The study will examine how this new approach to policy and control in higher education was introduced in Austria. It offers an unusual opportunity to investigate how a policy was transferred from another country and to compare the use of a similar institutional mechanism in different contexts. It will assess the factors that led to its acceptance, the success of the policy and its impact on the higher education system and more widely.

PT As indústria do cimento, cal, gesso e derivados em Portugal / autoria de Carla Rodrigues e Catarina Curado.
[The cement, lime and plaster industries and their derivatives in Portugal]
Lisbon: INOFOR, 2001, 169 p.
(Estudos sectoriais ; 19)
ISBN 972-8619-24-3

This study, dealing with the industries mentioned in the title and conducted by INOFOR within the framework of its project "Evolution of qualifications and diagnosis of training requirements", aims to identify the skills of individuals in specific occupations and work contexts, and also employment and training policies. It attempts to analyse the current situation in this sector from an economic and social perspective, and to carry out a long-term analysis of corporate strategies.

UK European and global networks for VET research and development / Michael Frearson; Tom Lenay
In: Learning and Skills Research, autumn 2003, p. 17-18

This article describes the development of two projects with an international perspective on vocational education and training in which the UK is actively participating: Cedefop ReferNet and the Unesco UNEVOC.

ReferNet – European network of reference and expertise

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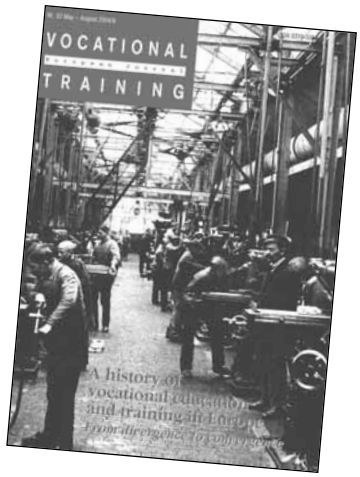

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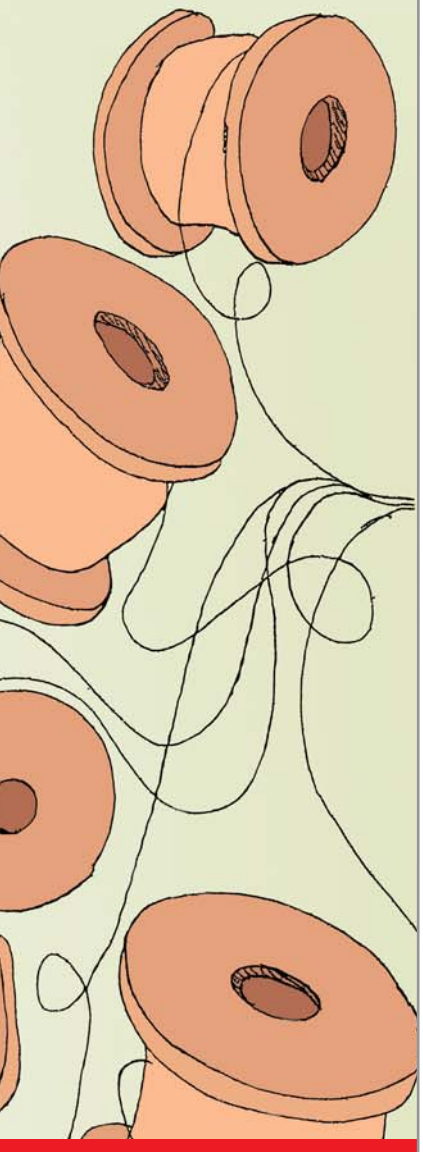

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