



European Centre for the
Development of Vocational Training



EARLY IDENTIFICATION OF
SKILL NEEDS IN EUROPE
INTERNATIONAL CONFERENCE

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Abstracts
(unrevised versions)

Keynote: Linking Research, Policy and Practice

George Psacharopoulos, Member of the Hellenic Parliament

Abstract

The strive for identifying future training needs has a history dating at least 50 years. During this period, a variety of models have been used with an equal variety of success and failure. The presentation is divided in three parts:

- Lessons from the experience of forecasting training needs
- Recent research findings in the economics of education and training
- Most promising training paths for an enlarged Europe

The presentation covers the links between the formal school and training systems, the labor market, and the financing of skills acquisition in a lifelong context.

Presentation of the German initiative on early identification of skill needs

Gudrun Steeger, BMBF

Developing an appropriate and future-oriented qualification profile of workers increasingly becomes a key factor of success. A demand-oriented Developing qualifications according to demand improves the chance of employees to get and to stay in gainful employment. Enterprises need skilled employees to be able to compete in a successful way. Employees, enterprises, and all those involved in vocational education and training are dependent on up-to-date information.

With the "Initiative for Early Identification of Qualification Needs" the German Federal Ministry of Education and Research (BMBF) has set up a research network on future-oriented questions concerning the development of qualifications.

At the centre of the network is the early identification of emerging qualification needs to support an innovative shaping of the vocational training system and a quick response to changes. The function of the early identification initiative is the identification of skill needs, the provision of results and the development of options for initial and continuing training.

In the meantime, eleven institutes and organisations are members of the initiative on early identification of the BMBF and constitute the research network FreQueNz (Early Identification of Qualification Needs). Apart from the social partners, the German Federal Institute for Vocational Training and seven renowned research institutes belong to this network.

The internet platform www.frequenz.net, the series of books "Recognising Qualifications – Designing Occupations" as well as a newsletter published biannually are available for the transfer of results.

The German early identification initiative is particularly interested in the exchange of results, methods and approaches of early identification of skill needs with European partners and emphasises this interest by participating in the organisation of international conferences.

The network project FreQueNz

Susanne Liane Schmidt, Fraunhofer IAO

The network project FreQueNz bundles the research work of the „early identification“ initiative of the German Federal Ministry of Education and Research. To establish a network at a time when the early identification projects are still being carried out

- enables a better overview on current and future research activities,
- facilitates the contact between the protagonists,
- enables an exchange of research methods and
- enables a comparison of approaches and results.

Therewith, the network and the regular meetings of the project partners serve as a basis for efficient communication, cooperation and development of options for action in education and training. The results of the initiative on early identification are made available to interested persons free of charge, quickly and systematically, which enables to react in good time to changed skill needs (see www.frequenz.net). So, the network increases the degree of transparency in the field of early identification both on the side of research and on the side of dissemination of results.

The FreQueNz projects do not focus on long-term quantitative macro analyses or forecasts of qualification needs but rather on qualitative surveys. The projects deal with isolated fields and subjects with different time horizons using various methods and approaches. In consequence, the assessment of the results leads to a more balanced picture of future qualification needs in general. Among other things, results on the following subjects are currently available: Building and car industry, mechanical engineering and electronics, care, health, wellness, logistics, transport, retail, e-commerce, ICT, multimedia, telecommunications, facility management, tourism, banks, financial services, low-skilled workers and international comparisons of qualification developments.

European activities, perspectives and cooperation in the field of ‘Early identification of skill needs’

Manfred Tessaring, Cedefop; Christoph Hilbert, WZB

Abstract

Approaches used for the early identification of skill and qualification needs in the various countries are rather diverse. Methodologically, they range from quantitative forecasts and surveys to more qualitative scenarios, observatories and focus groups. Increasingly, their focus is on sectors, regions and specific groups of enterprises and people. However, access to this information in most European countries is difficult and cooperation across national borders – despite a certain progress in the recent past – is not yet well-developed. Based on a workshop last summer at the WZB in Berlin and the German Network activities FreQueNz this conference could be a starting point for a deepened and continuous future cooperation – both between scientists and research institutions, and between researchers, policymakers and practitioners from different countries. Exchange of experience and transnational cooperation should serve as a driving force for the further development of methods and approaches and their transfer into policy and practice.

Cooperation and transparency could be promoted by the establishment of a cross-country network – incorporating the accession countries and other countries outside the European Union. This network should foster and support

- mutual exchange of experience and information on methods, approaches and the outcomes of early identification initiatives;
- the provision of information which is suited for transfer into policy and practice;
- regular meetings of researchers and stakeholders;
- concrete promotion and support of transnational projects and initiatives;
- exchange of researchers, particularly of young researchers, across countries;

The network would require an organisational framework with corresponding personnel and financial resources and the establishment of a website as an information and discussion platform. A further aim is to build up an information and documentation database, for example within the Knowledge Management System and the REFER Network which are currently being built up by Cedefop.

WORKSHOP I: "Good practice" / "different practice" - examples of the early identification of skill needs and policy transfer

Designing VET for the future - Forecasting as input for adaptive policy

Loek Nieuwenhuis, Stoas Research

Abstract

This paper challenges the power of forecasting techniques for the design of VET courses. Skill need identification techniques presume the predictability of labour market needs over years. This presumption is undermined by uncertainties, caused by the emerging knowledge based economy. (cf. Mayer & Nieuwenhuis, 2003).

For the then industrial economy, a linear and serial developmental model was adequate to design trajectories to becoming skilled. Job demands were rather stable over years, so apprentices could be trained based on a backward mapped course.

Job demands within the KBE will turn out to be unpredictable, caused by high-speed obsolescence of skills and hyper innovation. So skill need identification techniques are challenged for their applicability in the context of the KBE.

A policy dilemma is emerging between the wish to plan VET and unforeseeable skill needs. A way out is giving up the serial back casting model in favour of a parallel developmental model for VET design. In the parallel model, the self-developing student takes over the pivotal role from job demands in designing VET courses. The student 'decides' his skill profile, based on work-based experiences and disappointments, under guidance of VET-colleges and guiding teachers (cf. Nieuwenhuis & Shapiro, in press). Job descriptions serve as eye-catchers at the horizon, instead of regulators of skill trajectories. Becoming skilled is equivalent to becoming attracted by a branch of work, and - by legitimate, peripheral participation - becoming a skilled member of a specific community of practice (cf. Lave & Wenger, 1991). Such communities are not nationally defined, but regional or local: VET systems should allow local diversity in order to cope with the globally emerging KBE.

Within the parallel model, the self-developmental skills of apprentices become increasingly important: learning to learn, employability and self-employment are key skills for the KBE. Data from forecasting techniques remain important for VET policies, but they will not be used as the output of policies, but only as input for the design of flexible pathways and course delivery to support the self-developing trainee. A holy belief in skill needs forecasting will turn out to be a pitfall of certainty within a world of economic uncertainty. To cope with this uncertainty, forecasting techniques should be built in adaptive policy strategies (Walker, 2001), permitting uncertainties and vulnerabilities having impact during policy implementation stage.

Qualifications for the future

Mike Coles, Qualifications and Curriculum Authority

Abstract

Early recognition of qualification needs has been a problem for the UK for many years. Barriers include such things as poor labour market data supply, long gestation times for the development of qualifications and weak methods for collecting and analysing information about future qualifications needs. This paper concentrates on the potential of a new methodology, based on scenario planning, for maintaining an up-to-date set of qualifications that can serve individuals, employers and the economy well.

Scenario planning has been used in identifying qualification needs in three transport sector industries in the UK, road haulage, motor vehicle sales and servicing and rail passenger transport. The reactions of experts of labour markets in these industries to the new method are provided and also included are some pointers for future development of application of the method. Some issues have also been raised – who should develop scenarios? When should they be used in the needs analysis process? How industry specific should they be? What is an appropriate future time projection for preparing scenarios.

On the whole experts reacted positively to the scenarios exercise and evidence suggests that needs analysis exercises in the industries were enhanced by the method. For example tables were prepared which compared skills needs identified by traditional methods and those additional skills which were identified specifically by the scenarios exercise. Two key outcomes of the work were the capacity of the scenario method to combine qualitative and quantitative data and to deal with skills supply side information simultaneously with demand side data.

Mario Gatti, ISFOL

Abstract

In the past few years the necessity to improve the management of the labour market has been a priority of the Italian Government policy.

The speed of change in the labour market has created some difficulties in the process of relating the education systems to the new reality. The outcome is a paradox: many people having a high level of education are unemployed, while many enterprises have difficulty in finding the human resources they need.

In this framework the Department of Labour and Social Affairs has promoted the creation of a new system to monitor and forecast occupational and skill needs at the national level, with the aim to use the information to direct education and vocational training activities towards the emerging new needs.

The system is based on a network of national and sectorial surveys, which investigate occupations and skill needs. In this first experimental stage the surveys have been carried out by bilateral bodies composed by entrepreneurs and trade unions, while Isfol (Italian Institute for development of vocational

training) has the task to coordinate the surveys network and to manage the results through an information system based on an Internet platform.

During the Berlin conference on “Early recognition of skills requirements in Europe”, held last year, we reported on this project which is aimed to build a national permanent system to monitor and forecast the evolution of occupations and skills.

During this year we have been working to improve a prototype of this system named “Needs in Network” that will be presented during the Thessaloniki Conference in Workshop I the title of which is “Good practice/different practice – examples for the early identification of skill needs”.

Skill shortages inquiry by a combined method

Olga Strietska-Illina, National Observatory of Employment and Training

Abstract

The paper focuses on the problem of integration of the macro, meso and micro levels of forecasting and anticipation of skill needs. The approach currently under elaboration in the Czech Republic shall be explained and exemplified by the research findings into the problem of skill shortages. The recent research project shall illustrate approaches and methods of early identification of skill needs.

Although only minor percentage of Czech companies (about 10%) report recruitment difficulties and skill shortages as a result of a firm-level sample survey, the consequences reported by companies are very serious. The ‘perceived skill shortages’ may not, however, provide totally objective picture. Therefore apart from the firm-level survey, other corrective actions are used. These include vacancy statistics, measurement of general trends and developments, ‘corrective’ surveys in employment services at a county level, a survey of private employment services (‘headhunters’), and an inquiry of advertisements in the selected printed and Internet media.

As the result the general upskilling trend has been recorded and a number of specific shortage occupations identified. At the same time the combined methodological approach allowed to observe the reasons for the shortage (e.g. the actual labour shortage or poor working conditions?). Furthermore, it was possible to identify specific knowledge, skills and competences in shortage for specific occupations, qualifications and types of businesses.

Besides mentioning some actual findings, the paper tackles some systemic and methodological issues that can allow early identification of skill needs in a systematic manner. The role of an on-going knowledge exchange between expert institutions is indispensable not only at the national level, but also within and among international networks, along with an active usage of information platforms at different levels.

**International cooperation to capture the interactions between global and local developments:
The Observatory for the detection of competence and training needs in the region of Barcelona ¹**

Jordi Planas. GRET – Universitat Autònoma de Barcelona.

Abstract

Our societies are becoming more and more complex, and the speed of changes which affect them are accelerating. Thus, uncertainty is the prevalent characteristic of all information, including the long-term needs of competences. In addition, there is a high complexity of institutions and policies which affect education and training supply and demand and interact within a given territory.

For these reasons an instrument to detect competence and training needs in a large urban area must, in our view, be a tool to reduce and cope with uncertainty and to encourage decision-making instead of proposing ready solutions. This project defines the contents and methods for the detection of vocational training needs in the area of Barcelona with a perspective different from and critical to 'technocratic' methodologies which have dominated the observation of labour market and training for a long time.

The project aims to create an information system (based of quantitative and qualitative information) of supply and demand of vocational training in the region of Barcelona linked with other international initiatives. It will promote the debate on who should participate and decide on vocational training and will provide contrasting elements and analyses for taking decisions on the development of vocational training.

The theoretical frame is a model of adjustments based on competences. This model which increasingly gets off the ground within the management of human resources at all levels (from enterprises to the State) is based, among others, on the assumption that the labour market is factually a market based on competences. Competences can be acquired in different ways and at different times in a worker's life. Competences change in the course of time and are determined by technological demands and by the organisation of production processes which increasingly have a global character, but also by the specific characteristics of a certain territory concerning its context and history. Adjustments between competences needed by enterprises and 'offered' by workers are taking place on a market which reacts on 'signals' such as certificates. However, these competence signals are diversifying and cannot easily be captured by school certificates. A number of these signals have a specific territorial or sectoral significance – dimensions which have a particular importance on the market of competences.

Concerning the methodology, the project takes into account global and local developments and will create a permanent instrument to detect and observe competence needs and supply within a defined territory. This will be done in a pragmatic approach of regulation and adjustment, and will be accompanied by partnerships.

¹ Based on a project commissioned by the Vocational Training Board of Barcelona. The GRET of the Universitat Autònoma de Barcelona has established an international partnership with T. Leney (London University & QCA) and G. Ourliac (Université de Toulouse & ARGOS) to develop a methodology ad hoc. A part of this document has been published by CEREQ: J. Planas, J. Casal, M. Comas, T. Leney, G. Ourliac, J. Vivas (2001). 'Méthodologie visant à la détection des besoins de compétences et de formation professionnelle pour la Région de Barcelone'. In: CEREQ/CERAT 'La décentralisation de la formation professionnelle en France: Quels changements dans la conduite de l'action publique?' Theme 4. Grenoble.

Early Identification of skill needs in Europe: the transfer of pilot initiatives into policy and strategic implementation

David Parkes

Abstract

The intervention is brief. For substance it draws on two projects in Uzbekistan, one to identify key occupations of the New Economy in Uzbekistan (and Kyrgyzstan) funded through the European Training Foundation, the second a review of senior secondary education in Uzbekistan (funded by the Asian Development Bank). The examples are specific but, for the broader picture, the presenter has been / is recently responsible for the development of 'green' and 'white' policy papers for VET (and general education) in Uzbekistan, Bosnia and Herzegovina, Moldova and Turkey. The concern is the movement among **a.** the development of tools and approaches bottom up; **b** macro agreements on overall policy and strategic implementation; priorities and time scales for micro implementation.

The overall aim of the first project was to assist in carrying out the National Programme for Personnel Training in Uzbekistan and to support the reform of vocational education and training (VET) (also in Kyrgyzstan) by improving the links between labour market needs and VET and by identifying occupational change in terms of gaps, shortages and deficiencies in terms of competences available and required as well as the changes actually taking place in enterprises in specific sectors. The main project **objective** was to elaborate and test a methodology to identify key changing occupational functions that were in line with current and future labour market needs.

The terms of reference of the second project included requirements to review the relevance of college programmes to local market conditions; the capacity of colleges to respond to local need and the development of effectiveness performance indicators, case study localities were identified as a base for more general conclusions about all colleges.

Since politicians are prone to ignore 'the evidence' whether of research, evaluation or demonstration, then establishing a policy framework 'white' paper (agreed by the main actors in a country) with strategic recommendations has to take into account the political and policy drivers for review, renewal, reform or reconstruction.

WORKSHOP II: Early identification of skill needs in selected sectors

Lothar Abicht / Henriette Freikamp, ISW

Abstract

In 2002, about three million people were employed in tourism as one of the most important sectors and produced more than eight per cent of the GDP or 140.6 billion euro. Despite a considerable loss in turnover due to the actual situation and a general economic slowdown tourism is still the most important service industry in Germany after retailing. The share of tourism in worldwide employment amounted to eight per cent in 2002, in Europe it was 12 per cent.

The research of the Institut für Strukturpolitik und Wirtschaftsförderung Halle-Leipzig e.V. (isw) on trend qualifications in tourism proved that the development of this service sector is primarily determined by societal trends as, for example, the demographic development, changed leisure activities, increasing individualisation and growing awareness of health issues. These are triggers for numerous changes in the supply range of travel business and therewith have an effect on jobs and the development of qualifications. Tasks in travel agencies, for example, include to adjust package deals to the needs of different target groups since the demand for unique travels tailored to the individual needs of the customer increases continually. Tasks such as customer analysis, consulting, sale and service gain in importance and have a direct effect on the qualification needs of employees. Large fields of work such as travel accompaniment and the organisation of business travels are still mainly occupied by „unskilled“ employees, who acquired the needed knowledge and skills on different ways. Beside pronounced personal competencies, tasks such as the travel accompaniment of handicapped persons demand a certified qualification, which should be acquired in the framework of an apprenticeship or further training. In the course of the research of the isw, several qualifications directed to such tasks could be extracted and described intensively. These include the „tour designer“, the „tour guide for handicapped persons“ as well as a „specialist for business travel management“.

The results are based on a qualitative method specially developed by the isw to research trend qualifications – the sector scouting. By qualitative research at the micro level in so-called trend-setter companies concrete tasks and qualifications proved, which probably lead to a broad trend in skill needs. Further information on the method and results of the isw are available at www.frequenz.net.

Service work between standardisation and increasing complexity

Sibylle Hermann, IAO

Abstract

Currently, two developments can be observed in the service sector:

In some industries a wave of standardisation and rationalisation has started, which is partly caused by changes in business organisation and the introduction of new Information and Communication Technologies. The consequences for work and employment are similar to those already encountered in

manufacturing industries: There is a loss of jobs and jobs emerge which are organised upon industrial patterns. A typical example for this development are call centre jobs. It is to assume that this change of work will continue and will lead to a loss of many, even skilled, jobs.

At the same time, there is a development in the opposite direction: A noticeable intensification of knowledge takes place in service work. The bundling of services, the work in internal and external projects and a higher customer orientation lead to an increase in job requirements. This does not only mean a shift from manual to non-manual work but rather from occupational to transdisciplinary competencies.

This contribution takes a look at these developments and points out the resulting requirements for employees and companies by referring to case studies from hotel business and tourism.

Designing a methodology for the identification of skill needs in Greece by the Employment Observatory

Olympia Kaminioti, PAEP

Abstract

Progress in identification of skill needs in Greece has been rather slow. Some attempts that have been made either at the regional or occupational level have been rather ad hoc efforts concentrating more often on mismatches between labour demand and supply and less often on the content of the occupations and on specific skills and competences. On the other hand, the pressing need for reliable input for the assessment and improvement of labour market and educational policies has recently brought some results, at least at the stage of designing a monitoring system for skill and competence supply and demand. The Employment Observatory has undertaken the responsibility for designing a methodology for this purpose. The project draws from the experience of other countries on this subject. Advantages and disadvantages of different approaches were considered and approaches already used elsewhere were adapted to the situation in Greece. The aim of the methodology is to estimate the short-term labour supply and demand of the occupational and sectoral structure at the regional level as well as the labour supply and demand of skills and competences corresponding to the previous structure. It is an ambitious project that requires the analysis of quantitative and qualitative information. The data that will be used include time-series data on the economy and the labour market available from the National Statistical Office and the Manpower Labour Organisation. Additionally raw data will be collected utilising company surveys and in-depth interviews designed for the purposes of this project. In a short presentation in this conference I will sketch the methodology that is being prepared for this project.

Knowledge workers for modern economies

Richard Pearson, Institute for Employment Studies (IES)

Abstract

The effective development and use of science and technology is essential for technological innovation and the competitiveness of European companies and economies in global markets. A sustained and well utilised supply of science and technology skills, *ie* knowledge workers, are essential for such success. Knowledge workers are also essential for the effective delivery of health and welfare services, social equality, and a sustainable environment. This paper will review the way in which the demand for knowledge workers is evolving, and will highlight the growing importance for such people to have good inter personal and commercial skills. It will then look at the key role of higher education in supplying such skills. It will also address the growing issue of the international mobility of knowledge work into and out of Europe, and the international mobility of knowledge workers in meeting future skill needs. The paper will conclude with recommendations for policy makers, practitioners and individuals in meeting these needs including those relating to improved labour market information, skill development and lifelong learning.

A multidimensional approach of skills needs identification

Theo Reubsaet / Toos Feijen, REVICE - NL –

Abstract

The discussion about early identification of skills needs often has its focal point at defining and analysing methodological practices. A long history of research¹ has learned that:

- education political and practical objectives often (co-)determine the benefit and success of specific methodologies for early identification of skills needs; in some EU countries until recently education political discussions, e.g. between social partners, were far more important for defining qualification contents than the results of the application of specific methodological approaches to identify skills needs; international comparative research also makes clear that national industrial sector contexts still strongly influence the skills needs of employment providing organisations in different countries.
- the choice of a methodological approach for the early identification of skills needs should take into account the level at which the results will be used (education policy development, education programme, curriculum, company training initiatives, etc.),
- a distinction should be made between skills needs that can be fulfilled in continuing vocational training and skills needs which have to have consequences for initial vocational education programmes.
- tradition in identifying and anticipating skills needs is different in the EU countries, implicating that a policy directed at improving early identification of skills needs will have to take different forms. Even though, also in the less advanced countries interesting experiments can be found.
- time and money constraints are often determining methodological choices for skills needs analysis.
- a clear distinction should be made between early identification of skills needs quantitatively (the number of people employed in specific jobs or professions, the number of occupationalists expected) and qualitatively (the development of the content of the occupations). Techniques of data collection partly correspond, however.

- strong professional interests groups, sometimes together with or sometimes opposed to the educational field, can strongly influence the results of an 'identification of skills needs' process.
 - A multiple use of research methods can best be applied when skills needs expectations have to be identified at a more strategic level. The Early Bird project (coordinated by BIAT, University of Flensburg) focusing at future developments in the machine industry and the recycling industry in five EU countries, which is combining sector analysis (literature and document study, stakeholders and experts interviews) and company case studies (document study, work process observation and analysis, employers' and employees' interviews) is a good example of this.
- ¹
- Feijen T., Reubsaet T. and L. van Ootegem (et alt.). Instruments, tools and policies to anticipate the effects of industrial change on employment and vocational qualifications, 1996;
 - Feijen T. and T. Reubsaet (et alt.). Observatory of innovations in qualifications and training needs analysis, 1998;
 - Feijen T. and T. Reubsaet (et alt.). Adaptation and anticipation to industrial change in higher vocational and professional education, 2001.

Technological innovations and new sectors

Friedrich Hubert Esser, Research Institute for Vocational Education and Training in the Crafts Sector at the University of Cologne (FBH)

Abstract

Technological innovations are not only an attribute of the structural change. Especially in Small and Medium Enterprises (SME) they also document the reality of knowledge economy and knowledge society. The increasing impact of knowledge economy in SME's predominantly takes place in an evolutionary way, that means technological innovations do not necessarily lead to new economic sectors. Traditional structures are rather changing by enriching the skill requirements of existing jobs with respect to knowledge-based aspects especially in technical industrial fields.

In that context the project of the German Employers' Coordination Board for Vocational and Further Training (KWB) and the Research Institute for Vocational Education and Training in the Crafts Sector at the University of Cologne (FBH) identifies the following developments of skill requirements e.g. in the German automobile crafts sector:

- eight of the ten most important future qualification subjects have a technology spanning reference
- measuring, controlling, analysing, investigating, making diagnosis and communicating come to the fore of competence expectation
- new information technologies (e.g. the Internet) become the information medium for maintenance, repair and overhauling of cars
- tele-diagnostic and garage networking evolve to innovative services in the automobile crafts sector with direct reference to technical innovation in garages and enterprises

WORKSHOP III: Identification of transversal competences and qualifications

Veli-Pekka Niitamo, Nokia

My presentation will be focusing on few key challenges of Europe's competitiveness in providing highly competitive labour market to its economy. The ICT Industry Initiative 'Career-Space' program and its results will be outlined. Issues of qualitative skills gaps and quantitative skill shortage will be discussed. Cross occupational transferable skills are introduced with generic skills profiles and division is defined between creation skills, application skills and user skills. Finally an outlook for future work profiles are debated.

Peter Bott, BIBB (The Federal Institute for Vocational Training)

Abstract

Apart from other research activities, the Federal Institute for Vocational Training (BIBB) carries out job advertisement analyses in the framework of the initiative „Early identification of qualification needs“ funded by the German Federal Ministry of Education and Research (BMBF). The presented results refer to a representative job advertisement analysis and succeeding advertiser follow-on interviews in the IT sector.

Skill needs for newly recruited employees in the IT sector, which is a field characterised by dynamic innovation, are high. Recruiting companies are primarily looking for highly skilled staff. Although vacancies are mostly advertised for graduates of universities and technical colleges (“Fachhochschulen”), companies usually put more emphasis on specific knowledge rather than formal certificates and degrees. In addition to professional know-how, soft skills as, for example, the ability to cooperate and to work in teams as well as to communicate are indispensable for a successful filling of vacancies. The innovative pressure in IT makes companies demand a high willingness to continuing education from new employees. The fact that about 20 per cent of offered jobs are still vacant half a year after advertisement shows how difficult it is for IT companies to find sufficiently skilled employees. Recruiting companies criticise the lack of the combination of professional knowledge and pronounced soft skills as an essential deficit in qualification of applicants.

ICT professional skills in the candidate countries

Elissaveta Gourova, IPTS

Abstract

Well-educated and highly-skilled people are widely recognized as vital for the achievement of the vision of an 'e-Economy in Europe'. For the candidate countries, the wide range of challenges that they face relating to e-skills needed to develop, apply and use information and communication technologies (ICTs) raises the stakes as regards such visions and in particular the achievement of the eEurope+ Action Plan.²

This paper presents results from a recent investigation of ICT professional skills and jobs in EU candidate countries. It highlights ICT job trends and the prospects to maintain the stock and improve the supply of highly-skilled professionals over the middle to long term. The study confirms the common perception of availability of highly-skilled ICT workers in the candidate countries, but it also indicates that their numbers are not sufficient to meet the increasing demands. This growing skills gap endangers a smooth achievement of 'e-Europe' in the candidate countries.

Looking in more detail, from the supply-side, the building of ICT skills starts at an early age and continues through the whole working life. All candidate countries now acknowledge the role of ICT as an enabling technology and thus basic ICT skills are necessary for all. For example ICT is now on primary and secondary educational curricula. In addition, the focus on mathematics and science in the early educational phases is considered especially important for 'ICT savvy' employees. Here, the strong capabilities in mathematics, science and informatics in most candidate countries augur well for the future supply of highly-skilled professionals. At the same time, the university students are focusing on subjects where the demand of industry is higher – for business and management, ICTs or interdisciplinary skills.

On the demand side, the candidate countries tend to follow EU trends in ICT-related developments with slight time delay. Thus, even with good in flows of numerate employees, demand is likely to far outstrip the supply and higher skills shortages can be expected in the next few years. What should be done in order to avoid severe e-skills disequilibrium in the future? For the candidate countries the monitoring of ICT job trends and the evaluation of educational supply are necessary initial steps in this respect – based on a multilateral partnerships approach.

² The eEurope+ Action Plan was presented by the Heads of State and Government of the Candidate Countries at the Goteborg European Summit (16 June 2001).

New Challenges for the Low-skilled

Hilary Steedman, LSE

Abstract

The work of the NEWSKILLS group concluded that the labour market situation of the low-skilled in Europe remains difficult with high levels of exclusion.³ The trend towards increased exclusion has continued into the new millennium and we see no indication that the situation will be reversed in the coming decade. Indeed, the latest indications are that it may again be accelerating.

Improvements in the overall education and training levels of young people have not prevented a worsening of the situation for the low-skilled. Even at present growth rates, in most European countries at least 20 per cent of the population will continue to fall into this category well into the coming decade. As a consequence, the employment prospects of the low-skilled and associated social inequality will continue to pose a major problem for Europe for many years to come.

The findings of the research undertaken inevitably point to a number of policy failures. These were emphasised further at a meeting held with the social partners, under the aegis of CEDEFOP, to discuss some preliminary findings of NEWSKILLS.

The first major policy failure that needs to be addressed is that schools in all European countries are continuing to produce young people inadequately equipped or prepared to take advantage of further education and training.

What is worse, some of those who leave initial education have developed an aversion to learning as a result of their school experiences and the disastrous results of this are seen in the reluctance to 'go back to school' to acquire further education and training in later life. In short, albeit all the rhetoric, lifelong learning abilities remain by and large absent from the set of core competencies that are currently assigned to initial education.

Hence, we are keen to make the point that the period of basic (usually compulsory) education should not be primarily concerned with selection for higher levels of education. Schools need to focus more on ensuring a minimum level for all and on maintaining high degrees of self-esteem during the period of compulsory education.

An equally serious policy failure has occurred at the level of education and training for mature adults. Few older people have improved their qualifications over the period under scrutiny. Most improvement in the qualifications of the labour force have occurred as a result of the entrance of better-qualified young people. The formal adult education system fails, because it replicates the school system and is not appealing to low-skilled individuals already in employment. We therefore must not just provide training, but also address the issue of low demand for training; supply alone does not create its own demand, a situation that calls for appropriate incentives.

³ NEWSKILLS project carried out in six countries (France, Germany, the Netherlands, Portugal, Sweden and the UK) by the following partner institutions: CEP, London School of Economics and Political Science, UK (Co-ordinator), CEPCEP, Universidade Catolica Portuguesa, Portugal; Max Goote Centre and the Faculty of Economics, Universeiteit van Amsterdam; Stockholm Institute of Education; Industriens Utredningsinstitut, Stockholm, Sweden; CEREQ, Marseille, France. The Final Report of the project is available at <http://158.143.98.51/homepage/tser/>

Linking quantitative and qualitative prospects for “low-skilled” jobs

Gery Coomans, ISMEA (Institut des Sciences mathématiques et Economique Appliquée – Paris)

Abstract:

- Prospects of declining labour supply of people with low educational level (EU15-25) are : (EU15) –15 % between 2000 and 2010, and – 17 % between 2010 and 2020.
- Prospects of slowly declining number of jobs for people with low educational level : example of 1996-2001.
- Prospects of shortages and mismatches (occupational, sectoral, territorial) : some examples from ISCO lines. This will be aggravated by :
 - Low skilled : high professional mobility vs low employability
 - The high impact of ageing for low skilled people: depressing mobility and internalising of their competence development within enterprises
 - The conditions for heavy impact of demographic shifts : a) stop-and-go hiring and b) low professionalisation .
- Links with qualitative changes : old classifications vs new requirements of job assessment.
- The need to recognise both the changing competence requirements and the changing patterns of personal competence development. Some ISCO examples.

New challenges for low-skilled people

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Abstract

The main goal of this presentation is to promote a critical reflection of training approach challenges for low skilled young persons in Europe. The conceptual framework of analysis is Education because the work in this field is future oriented and can prevent future mismatches on the labour market. Based in Portuguese case studies, this workshop presents and discusses future skill needs for low skilled people and tackles the question of how to cope with these challenges.

Expanded Abstract

Youth unemployment remains one of the most serious problems in the EU Member States, affecting specially those who have difficulties to perform at school. The implication of this question is related to political, economic, social and educational issues.

In modern society the development of the professional activity is a main source of social-professional integration. The growing number of young people that leaves school before finishing the compulsory school without any professional qualification is a worrying question for society. For low skilled students it is a complex process to get a professional qualification. In the future most of them become low skilled workers.

This has led to an enhanced view on competences. The discourse on key competences is, usually, very much economy oriented. Key competences are assumed to open up career choices, in other words to enhance the individuals' employability and help to react more flexibly to the changing needs of the labour market. However, their relevance does not result from an enhanced or reduced employability but rather from the question of social integration or exclusion. Key competencies - rather other than basic and technical skills - aim at the holistic development of the personality to prepare low skilled people for the challenges of the future.

To develop the competencies, in contrast e. g. to the German concept of action oriented learning, the approach of situated learning highlights the social context of a learning situation and builds on the community of practice as a central element. The legitimate participation (Lave/Wenger, 1991) at a community of practice supports this process of learning, which is composed by the four elements of 1. doing and making, 2. belonging, participating and sharing, 3. experiencing meaning and 4. growing an own identity

The recognition of the individual knowledge and experience of the low skilled persons, reinforces the importance of the programmes adequate to the needs, values, culture and life styles of the different kind of target groups. Based on constructivist assumptions innovative training approaches focus on individual abilities and competences highlight the importance of a close relation to work place reality. A competence oriented curriculum, which is linked to the workplace context, and therefore relevant for the learner makes more sense for this target group. However, the workplace is only one place where low skilled people can be reached – but we would encourage an emphasis on engaging them in all kinds of learning, in all kinds of settings, including the workplace. The design and development of innovative programmes with different approach and methodology of the learning process, specifically oriented to the low skilled persons, improve their responsibility, autonomy, ability to solve problems and teamwork, self-confidence and self-esteem. For the teachers and trainers as well as for the training institutions this is both a new challenge and innovative situation. Developing professional development training for key competences trainers giving them an understanding of workplace culture is a first step.

That is to say teachers and trainers need to fulfil new roles such as, tutors, counselling, mediators. Thus, it is very important to create a suitable training conditions in order to these “actors” provide a new professional challenges. The perspective of “situated learning” within a real community of practice is a possible way to processes new way of thinking about development of training according to each context and realities of low skilled persons.

Keynote: Necessity and establishment of a European network of activities related to the early identification of skill needs

Ulrich Mittag, BMBF

Abstract

This article focuses on the objectives, design and context of a European network for the early identification of skill needs.

It will analyse the relevance and the benefit of a network of this kind for making decisions on vocational training policy and organisation, and investigate sustainability solutions for a system of this nature. In this context we must also consider how we can create a win-win situation for network users and suppliers.

On that basis, this keynote article will present various network levels from a systemic perspective. The levels are categorised according to target-group-oriented criteria. The categories include training providers (in both training institutions and businesses), academics and educational policymakers (social partners, associations, relevant ministries, etc.). The article will address questions concerning links and mutual exchange of information between network levels, and the demand-oriented structure of the networks. With the support of modern communications media, a network architecture (virtual communities, Internet-based discussion groups, etc.) can be established which is both efficient and economically viable.

The studies that emerge on the strategic and operative implementation of a European network for the early identification of skill needs will ultimately lead into the subsequent round table discussion.