

Competence development as workplace learning in Asia and Europe: Introduction

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Background and context of this publication

This collection is the outcome of an international seminar held at the University of Innsbruck in September 2006 within the framework of the ASEM Lifelong Learning Research and Education Hub (ASEM-LLL), in particular its research network on competence development as workplace learning, in which eight countries are currently represented: Austria, the People's Republic of China, the Czech Republic, Denmark, Hungary, Malaysia, Thailand and the United Kingdom.

The ASEM-LLL Research and Education Hub is an established initiative within the framework of the Asia-Europe Meeting (ASEM).¹ The Hub aims to develop innovative, research-based concepts and understandings of 'what works' in lifelong learning in the two world regions. Applied research outcomes should both contribute to good education and training practice as well as to evidence-based policymaking in lifelong learning.

The Competence Development as Workplace Learning Research Network (CODE)² is one of four thematic research networks established by the Hub in 2004. The CODE network has begun³ by exchanging ideas and information, with a view to developing cross-national research projects. For the Innsbruck seminar, network

¹ ASEM (the Asia-Europe Meeting) is an informal process of dialogue and co-operation initiated in 1996. The 27 EU Member States, the European Commission and 13 Asian countries (Brunei, Burma/Myanmar, China, Cambodia, Indonesia, Japan, South Korea, Malaysia, Laos, the Philippines, Singapore, Thailand, and Vietnam) participate in the process. The ASEM dialogue addresses political, economic and cultural issues, with the objective of strengthening the relationship between the two regions, in a spirit of mutual respect and equal partnership; for further information, see http://ec.europa.eu/comm/external_relations/asem/intro/index.htm [accessed 28.09.2007]. The ASEM-LLL initiative is co-ordinated by the Danish Ministry of Education and the ASEM-LLL Hub is based at the Danish School of Education (DPU), University of Aarhus, in Copenhagen. The University of Innsbruck is the Hub's nominated university member for Austria, represented by Univ.-Prof. Dr. Lynne Chisholm.

² Co-ordinated by Prof. Dr. Bente Elkjaer together with Dr. Steen Høyrup at the Danish School of Education, University of Aarhus.

³ Five meetings have taken place to date: Danish School of Education, Copenhagen, April 2004 (launch); Chulalongkorn University, Bangkok (Thailand), May 2005 (international Hub meeting); University of Innsbruck, Institute of Educational Sciences (Austria), June 2006 (European partners meeting) and September 2006 (international seminar); Masaryk University Brno (Czech Republic), June 2007 (European partners meeting). The sixth meeting takes place at the National University of Malaysia, Bangi Selangor in November 2007 (international Hub meeting).

partners prepared research review papers for their countries or a set of countries in their region, which will act as guides to designing interesting and relevant applied research projects on the theme of decoding working places as lifelong learning spaces across Asia and Europe.

Diverse conditions for workplace learning in Asia and Europe

The research reviews are situated, of course, in countries and regions that are very different from each other, but all of which face the challenge of putting lifelong learning into practice. This challenge derives from well-known social and economic reasons, but it presents itself as a system-wide challenge for education and training policies and practices. This research network focuses on just one part of that challenge: it pinpoints the workplace as a site for learning, and in doing so it focuses on those who are in the workforce, in particular those who are employed.

This poses immediate potential contrasts between Asia and Europe. In Europe, workplace learning would be seen to apply to adult employees in the first instance and additionally to young people/young adults in initial vocational education and training (IVET). Depending on the country and the IVET system in question, the latter group would mean those aged at least 15, but more usually those aged at least 18, but not those over 25 at most. In many parts of Asia, the category 'employee' would include many more young people, some of whom would be aged under 15, and many of whom would not be formally registered on IVET courses, whether work-based or not.

The potential and actual construction of working spaces as learning spaces clearly varies between sectors, organisations, employers and specific work-task environments. On the other hand, the ways in which such working places might best be educationally (re-) constructed as learning spaces also depend on employee characteristics, including, for example, age and life-stage. Young people in their first years of employment may well have different kinds of learning needs, demands and motivations in comparison with 35-year-olds who have been in the workforce for two decades or more.

However, the relation between age and workforce experience is not necessarily consistent. In Europe, the average age of initial entry to employment is rising, and it is not unusual for higher education graduates to enter the general workforce in their late twenties (although many may have gained work experience during their studies). What kind of workplace learning for what kind of competence development is appropriate for 'new recruits' aged 30 compared with 15-year-olds? In contrast, what is relevant for a 22-year-old who has been in paid work since the age of 12 – which is quite possible in parts of Asia?

Such comparisons might equally be made for older employees, who bring more extensive personal and social biographies with them into their working places. The

point is two-fold: firstly, learning spaces are constructed and experienced between the features of workplaces and the characteristics of employees. Secondly, comparisons we may make between European and Asian contexts need to be carefully drawn – some may have less to do with systemic differences (economy, education and training, organisational cultures etc.) and more to do with intersections between contexts and biographies.

Differences related to education between and within the two regions

At the same time, there are very significant structural differences between European and Asian countries, as well as between the countries in each world region. Basic education and training indicators provide the background context in which competence development as workplace learning finds a place and might find a different, more visible place in the future.

For the countries currently represented in this research network, expenditure in 2004 on education as a proportion of GDP ranges from 1.9% in China to 8.5% in Denmark.⁴

All eight countries return universal (or nearly so) enrolment rates in primary education, but the picture is more varied at pre-primary level, where the EU25 participation rate for 4-year-olds is 86%, with Malaysia and Thailand reporting near universal pre-primary participation but in China, only just over one-third of children participate at this level.⁵

At secondary level, 76% of 18-year-olds in the EU are still enrolled in some form of education and training, with Denmark and (especially) the Czech Republic placed above the average, and the UK falling well below the mean.⁶ By the age of 24, 77% of young EU adults have completed upper secondary education (ISCED 3) – but here, the Czech Republic (in particular), Austria and Hungary are well ahead of this

⁴ UNESCO-UIS Global Education Digest 2006, Table 13; Austria, Hungary and the UK all fall around 5.5%; under 4.5% in the Czech Republic and in Thailand; and over 8% in Malaysia; figure for China from UNESCO-UIS (http://www.uis.unesco.org/profiles/EN/GEN/countryProfile_en.aspx?code=1560 [accessed 28.09.2007])

⁵ UNESCO-UIS statistics for China (2005), Malaysia (2002) and Thailand (2005), which do not specify the age to which the data apply (http://www.uis.unesco.org/profiles/selectCountry_en.aspx [accessed 28.09.2007]); Eurostat-UOE 2003 data for EU Member States (European Commission Staff Working Document Progress towards the Lisbon Objectives in Education and Training 2006, SEC(2006)639, 16.05.2006; Chart 6.1 [annex]).

⁶ *ibid.*, Chart 6.1

figure, whereas the UK and Denmark fall around the average.⁷ At post-compulsory and tertiary levels, however, Danish participation rates (in marked contrast with those in Austria) fall well above the EU25 averages, where, in addition, tertiary sector students aged over 24 are comparatively well-represented.⁸

Comparable figures for China, Malaysia and Thailand are less favourable. Gross enrolment rates in the secondary education sector as a whole reach 70% in Malaysia, 73% in China and 77% in Thailand.⁹ However, upper secondary completion rates are patchier. In China and Malaysia, relatively few (respectively 17% and 20%) attain qualifications that give access to tertiary education; in Thailand, the proportion is higher (46%), but this is also related to the structuring of the education and training system.¹⁰ Tertiary sector enrolment rates fall below the EU25 rate (56%), in China especially so.¹¹

These comparisons are important in the context of lifelong learning. They show the educational resources today's young people and children (will) bring with them for future competence development in active working life, and we indisputably know that the better educated people are, the more likely they are not only to participate in adult learning of all kinds but also to perceive the full range of learning opportunities open to them – including in the workplace and including non-formal and informal channels for learning.¹² In this sense, the comparison between European and Asian countries is one of scale and scheduling. We can see educational polarisation in both world regions, but in most Asian countries, the proportion of those who, for decades

⁷ *ibid.*, Charts 2.10 (for 2005; LFS data) and 6.2 (for 2003; UOE data). The divergent rankings between the two indicators result from differing system characteristics – for example, in Denmark, the variety and flexibility of learning pathways offered, but which may not ultimately lead to an ISCED 3 completion by the age of 24.

⁸ *ibid.*, Chart 6.4 (2003 data; ISCED 1 – 6; 15-24 age group) and Chart 6.5 (2003 data; ISCED 5 and 6; independent of age but expressed as a percentage of the 20-24 age group).

⁹ UNESCO-UIS statistics as in footnote 6; 2004 data for China and Thailand, 2002 data for Malaysia. Gross enrolment rates do not take account of the age of those enrolled, but relate these to the age-group to whom the sector is formally directed; in developing countries, a higher proportion of children and young people older than formally expected are enrolled in primary and secondary sectors.

¹⁰ UNESCO-UIS *Global Education Digest* 2006, Table 7. In Malaysia (especially) and in China, secondary education options that do not lead to tertiary access also reach significant proportions of the relevant age group.

¹¹ EU data for 2003, ISCED 5 and 6, 20-24 age group: European Commission, *op. cit.*, Chart 6.5; data for China, Malaysia and Thailand: UNESCO-UIS, *op. cit.*, Table 7. Thailand returns 41% for ISCED 5A and 17% for ISCED 5B (short-cycle tertiary courses), whereas Malaysia shows a higher ISCED 5B participation rate (45%) than for ISCED 5A (36%). In China, participation rates for both ISCED 5A and 5B are low (12% each).

¹² Innumerable studies and surveys attest to this finding; in European (EU15) comparison, see Chisholm, L. et al. *Lifelong learning: citizens' views in close-up*, Luxembourg/Thessaloniki: Office for Official Publications of the European Communities/Cedefop: 2004.

to come, will be disadvantaged adult learners, is higher than that in European countries.

European and Asian workforces are not only made up of younger adults. In Europe's ageing populations, they are increasingly made up of older age groups. We know that formal education levels continue to rise steadily by age cohort, and we know that older employees – most of all those who are less well qualified – do not participate very much at all in continuing vocational education and training (CVET).¹³ Asian populations are younger, but the education and qualification gaps between age cohorts are wider than in Europe. China reports that 2.5% of today's urban population aged 15-64 have had no formal education at all; this figure rises to 8.7% for the rural population.¹⁴ Cohort differences are certainly no less significant than in Thailand, where only just over half of those aged 35-44 have completed primary schooling.¹⁵ In Malaysia, primary completion rates fall off noticeably for those aged 55 and over, but still, 7.5% of the 25-64 population have never completed primary schooling.¹⁶

Perspectives for competence development as workplace learning

We can reasonably hypothesise that competence development as workplace learning will be at least as important for Asian as for European countries in the coming decades. Very little information of any kind is available on CVET in Asia, and even on the most positive estimate, only 42% of those aged 25-64 in EU Member States participated in any form of learning in the year 2002-03.¹⁷ The figures show an enormous variation by country – for example, almost 80% of Danish respondents claim to have done so compared with fewer than 12% in Hungary, with Austria returning the highest self-reported participation (89%).

¹³ 3.4% of EU25 ISCED 0 – 2 25-64-year-olds report having participated in any form of education or training in the four weeks preceding the relevant 2005 LFS survey; for the countries in this research network, the figures range from 16.9% in Denmark to 0.7% in Hungary (Chart 6.11, European Commission, op. cit.).

¹⁴ UNDP Human Development Report for China, 2005; data refer to 2000.

¹⁵ World Education Indicators (WEI) for 2006, Table 1a. (http://www.uis.unesco.org/ev.php?URL_ID=5263&URL_DO=DO_TOPIC&URL_SECTION=201 [accessed 28.09.2007]). Thailand reports that 4% of the population aged 25-64 has had no formal education at all; 25% of those aged 45-54 and 16% of those aged 55-64 have only completed primary education.

¹⁶ *ibid.*; primary education completion rates for those aged over 55 are significantly higher in Malaysia (76%) than in Thailand.

¹⁷ Eurostat *Lifelong Learning in Europe*, Statistics in Focus 8/2005 (http://epp.eurostat.ec.europa.eu/cache/ITY_OFFPUB/KS-NK-05-008/EN/KS-NK-05-008-EN.PDF [accessed 28.09.2007]); Eurostat *Betriebliche Weiterbildung in der Europäischen Union und Norwegen*, Statistik kurz gefasst 3/2002 (http://epp.eurostat.ec.europa.eu/cache/ITY_OFFPUB/KS-NK-02-003/DE/KS-NK-02-003-DE.PDF [accessed 28.09.2007]).

There can be little doubt that people interpret formal, non-formal and informal learning in different ways, according to cultural perspectives and the characteristics of education and training provision. At the same time, these particular findings result from a survey whose operational definition of informal learning centred on open and distance learning, both conventional and online-based, that is, there was no specific reference to workplace learning at all. The 2003 Lifelong Learning Eurobarometer findings¹⁸ suggested that the majority of the EU15 population aged 15+ think that they learn best in non-formal and informal settings, and that employers can play an important role in encouraging participation in adult learning. It also suggested that time and funding constraints exert a notable influence on the take-up of adult learning, and this was confirmed in the 2005 Vocational Training Eurobarometer, which also highlighted the importance of advice and guidance for CVET participation.¹⁹

The interests of this research network extend far beyond input factors, that is, provision of, potential for, access to and recognised participation in workplace learning as a site for competence development. Learning outcomes are ultimately more salient: what kinds and levels of competence development (best) take place through and alongside working processes? What kinds of benefits accrue to employees and employers thereby? Educationalists will always add that the quality of learning processes and experiences – regardless of visible outcomes – are the most important aspect of all, since these, and above all these, root themselves in and foster personal and professional development. In this respect, there is no difference at all between European and Asian employees: this is the core of the research-based challenge that we face together.

Major findings

The eight contributions in this collection offer a wealth of information at theoretical and empirical levels of discussion, but of course each has its own specific approach and emphasis. Nevertheless, all the following issues arise in all contributions:

- The rising importance of workplace learning for policy and practice is directly linked to economic and social modernisation in the context of technological advance and global competition.
- Inequalities of access to and participation in continuing education and training (CVET) in general and to (recognised) workplace learning in particular are consistently documented (by industrial and occupational sector, by company size, by employee status in the organisation and by existing education and qualification levels).

¹⁸ See Chisholm et al., *op. cit.*

¹⁹ Special Eurobarometer 216 (fieldwork 2004, report 2005), as reported in European Commission, *op. cit.*

- The significance of employer commitment to and support for workplace learning together with the importance of organisational culture in the sense of fostering learning-conducive working environments are heavily underlined.
- Employee motivation to participate in workplace learning and in CVET generally is clearly related to the perception and the reality of benefits and recognition for doing so.

The three Asian contributions (China, Malaysia and Thailand) reflect these countries' particular concern with economic modernisation and within this to improve their relative economic performance in Asian regional and in global terms. They also pay particular attention to competence development for managerial and professional staff as the motor for changing company cultures and improving overall performance levels. Sun (China) places subject-oriented constructions of competence at the centre of his contribution, reviewing recent research in management studies that for the most part draws on North American social and organisational psychological concepts and models. The contributions from Malaysia (Buang et al.) and Thailand (Wongboonsin and Rojvithee) place their emphasis on the framing conditions for provision and participation in CVET, seeking to link these with the quality of company performance at an aggregate level. The Thai contribution also makes specific reference to how workplace learning has to be planned and delivered in order to result in quality learning outcomes – in other words, it considers workplace learning pedagogies. In Malaysia, there is very little research to date on workplace learning, which is a new topic for research and policy. This is the reason why the writers decided to conduct an initial survey with two different groups of employees (in the civil service and in the manufacturing industry) specifically for the report at the Innsbruck seminar.

The five European contributions cover the Nordic countries (Elkjaer and Høystrup), the German-speaking countries (Chisholm et al.), the United Kingdom and Ireland (Kersh and Evans), the Czech Republic (Pol et al.) and Hungary (Benedek and Erdei). They, too, all contextualise their contributions against the background of strong policy interest in managing the transitions to European knowledge societies and economies in the face of global competition, with explicit reference both to national policies and to the 'Lisbon process' at EU level. Adult learning in its widest sense is seen as a key lever for adapting to change, both at individual and at organisational levels. These contributions display a sustained interest in conceptual and theoretical debates on learning, competence and organisational culture. Their perspectives vary according to their differing discourse traditions and cultural contexts, yet they all share an understanding of workplace learning as adult learning that may be situated at all points along the learning continuum between formality and informality, but which is directly linked to the workplace and to work processes. It may take place via company-funded training away from the workplace, but in the essence it is learning that takes place at the workplace and in or alongside one's work.

The reviews of British, Irish and Nordic research reveal the current emphasis placed on informal learning and its recognition, and hence on the features of organisational environments that enable the development of a positive and sustainable learning culture. These contributions also underline the social dimension of learning and the application of competence in communities of practice. Workplace learning provision in the German-speaking and the Nordic countries can also call on the firm traditions of co-management and consensus politics between the Social Partners, which underpin the arrangements for IVET and CVET in these parts of Europe; this approach is now gaining new ground in Ireland and the UK.

The reviews of research in Hungary and especially in the German-speaking countries draw attention to the importance of the longstanding dual system of apprenticeship as a 'blueprint' for conceptualising workplace learning for adult employees. This is also related to the concept of occupation as an organic entity and source of identity and jars to some extent with a concept of competence as importantly generic and modular. The German-speaking countries share with the Czech Republic and Hungary the importance traditionally placed on formal qualifications and, therefore, are all at relatively early stages of developing appropriate forms of recognition for practice-based and informally-acquired competence. As two relatively small countries, both the Czech Republic and Hungary cannot call on large bodies of indigenous research, but it appears that the field of educational research has not turned much attention to workplace learning as a modality of adult learning. Management studies and labour economics have been more active, but not necessarily specifically from the perspective of workplace learning as competence development. Both countries also share the specific challenges of modernisation in European transformation societies and point out that company-based and funded CVET in general is relatively underdeveloped – for many decades, companies relied on state provision of training at initial and continuing levels, which did not necessarily bear close relation to training needs in workplaces themselves.

A critical reflection – a challenge for the future

The three contributions from Asia and the five contributions from Europe are individual exemplars that furnish rich information and insight, but which are obviously not comprehensive and representative for Asian and European perspectives and research as a whole. Nevertheless, we can draw some tentative hypotheses that begin to describe how European approaches might look from Asian standpoints and, of course, vice-versa.

A European readership could well conclude that Asian accounts of workplace learning as competence development

- equate lifelong learning with CVET and do not clearly distinguish between CVET in general and workplace learning in particular;

- do not regard the location and the modality of workplace learning as particularly significant, which means that the idea of the learning continuum between formality and informality is largely absent from the discourse and little attention is paid to pedagogy;
- apparently make no conceptual or operational distinctions between skill and competence, at least when working through the medium of English, in which they are much more likely to use the term skill; and
- take an uncritical, matter-of-fact approach to education and training as serving economic needs and to the unquestioned desirability of economic development in mainstream global terms.

Conversely, it could well be that an Asian readership might consider European accounts of the same theme as

- too immersed in debating conceptual issues at the cost of addressing the concrete problem of raising knowledge and skill levels in the workforce;
- inclined to lend too little importance to societal needs and employers' interests, but to over-focus on the interests of individual employees when looking at the outcomes and benefits of workplace learning;
- drawing on a wide-ranging understanding of lifelong learning that situates workplace learning in closer relation to adult learning and personal development;
- prone to display highly critical concern with current economic change and development in Europe and on a global scale, but as a consequence taking insufficient account of the legitimate interests and real-life situations of developing countries.

These two summaries are certainly over-simplified and quite possibly invalid, but they are offered in the spirit of furthering constructive debate in the ASEM-LLL research network and, perhaps, amongst the wider readership of this collection.

It is, however, reasonable to suggest that none of the eight contributions to this first volume succeeds – based on their research reviews – in creating organic links between competence development as workplace learning. The basic challenge for the research network is to identify and understand the nature and the process of competence development as embedded in work processes as seamless working/learning environments. In other words, how can learning become an integral and productive element of working life – and hence be perceived, recognised and valued as such, to the benefit of all concerned?

Contemporary Nordic research on workplace learning

Bente Elkjaer, Steen Høyrup and Karen Lerstrup Pedersen

Introduction

The Nordic countries comprise Denmark, the Faroe Islands, Greenland, Finland, the Åland Islands, Iceland, Norway and Sweden – in total 24.7 million people who share a long history and similar social and economic development. The most common features of the Nordic countries comprise well developed welfare states characterised by universalism (meaning that all citizens are entitled to basic social benefits), high social spending, high taxes and a large public sector; all this is sometimes called the 'Nordic Model'. As Jensen and Larsen (2005)²⁰ point out, the Nordic countries are currently performing relatively well and according to the World Economic Forum they are among the five most competitive countries in the world (op. cit.). The Nordic countries have succeeded in achieving a high employment rate and they all fulfil – or are close to fulfilling – the 'Lisbon goal' of an overall employment rate of 70% (European Commission and Eurostat, 2004). It is important to mention that both Nordic employers and employees are well-organised. For example, 60% of Danish employers belong to the Confederation of Danish Employers, together covering 90% of the labour market, whereas about 8 in 10 workers are members of a trades union. Female employment rates in the Nordic countries are also higher than in other EU and EEA Member States and they all already meet the relevant 'Lisbon goal' of a female employment rate of at least 65%. One reason for this is that family-related services such as childcare and eldercare have increasingly been provided by the public sector and hence are no longer the sole responsibility of families.

A large public sector is also characteristic for the Nordic countries, and it today accounts for about 30% of all employees. Public health and social services are mainly financed through taxation. These services are usually produced and delivered by local authorities. The public sector in the Nordic countries also assures social security for those who temporarily or permanently are unable to provide for themselves. The provision of basic insurance and health services promotes mobility and flexibility on the labour market. Employment policies lie at the heart of labour market policy in the Nordic countries. Active labour market programmes (ALMP) constitute one important instrument for achieving full employment, and were already

²⁰ This is the main source of the basic information for this opening section. This contribution as a whole includes research from Denmark, Finland, Norway and Sweden.

introduced in Sweden in the 1960s. ALMP serve a twofold purpose: firstly, to upgrade the skills of the unemployed so as to avoid bottlenecks in the labour market and, secondly, to encourage the unemployed to remain active and search for jobs. Ultimately, the aim of the system is to avoid long-term unemployment.

The Nordic countries place high emphasis on adult education and continuing training. Close to 20% of all adults between 25-65 years old participate each year in some kind of adult education and training. The average for adults in the EU as a whole is around 8% and only the UK has a higher participation rate than the Nordic countries (European Commission and Eurostat, op. cit.).

The Nordic model is an important background and it frames, in different ways, the conditions and possibilities for workplace learning. Although workplaces hold different interests for employers and employees, we often find common features in competence development projects at workplaces. This basic background information should be kept in mind as this contribution is read.

The preparation of this review

This review includes research on workplace learning conducted in Sweden, Denmark, Norway and (for theoretical contributions) Finland, primarily for period of 1995-2006 with occasional earlier additions for seminal contributions to the field.²¹ The review focuses on three main themes: motivation of learners and organisations for workplace learning; recognition of prior learning; and contexts and conditions for workplace learning. It draws primarily on educational, sociological and humanities-based research literature. Research based on human capital theory, cost-benefit analyses and labour market studies have been excluded on the basis that they do not place concepts and theories of learning at the centre of attention. In educational research, interest in workplace learning, which has developed from adult education research, has drawn increasing attention in the last decade. Much empirical research is based on case studies in different industries and enterprises, whereas most theoretical (and normative) contributions in the field are linked with and grounded in these empirical studies.

The search process guidelines included: workplace learning; working life learning; learning in work life; work-based learning; learning and work; and organisational learning. The search included monographs, especially edited collections from academic researchers working in the Nordic countries together with the Nordic Council of Ministers publications. The following databases available at the Danish University of Education library were consulted: *Norart* (Norwegian database), *Artikelsök* (Swedish database), *Eric* and *Psykinfo*. The search included the following

²¹ Particular thanks are due to Karen Lerstrup Pedersen, who conducted the literature search for this contribution.

research journals: *Tidsskrift for arbejdsliv* (Danish), *Scandinavian Journal of Educational Research*, *Scandinavian Journal of Management*, *Dansk Sociologi* (Danish), *Journal of Workplace Learning*, *International Journal of Lifelong Education* and *Pedagogisk Forskning i Sverige* (Swedish). We also searched the bibliographies of relevant books and articles as well as relevant websites (www.faf.no and www.vox.no [Norwegian]; www.arbetslivsinstitutet.se and www.larena.se [Swedish]; www.kubix.dk [Danish]). For the selected material, we read abstracts and introductions, and then browsed the texts to identify thematically relevant theoretical perspectives, methodologies and research outcomes. We excluded literature from human resources (development), political science and economics, and we did not include literature on formal adult education initiatives.

Workplace learning – definitions and concepts

Research on workplace learning is a diverse field with unclear boundaries. Researchers from many different academic fields such as adult education, organisational studies, psychology, sociology, economics, and political science conduct research in workplace learning. It is also a field in which many different related and partly overlapping terms have been developed or are routinely used, such as lifelong learning, workplace learning, working life learning, organisational learning and the learning organisation. Thus, the theoretical and conceptual frameworks inherent in the discourses of Nordic research on workplace learning are quite diverse; there is no universally agreed understanding of the notion of workplace learning in the Nordic countries.

Comparing organisational and workplace learning, Elkjaer (2005) writes that these comprise two scholarly traditions that apparently address the same object: learning at work and learning in organisations (see also: Elkjaer and Wahlgren, 2006). The two traditions originate in different research fields. Organisational learning is rooted in organisation and management studies, and within this field learning is regarded as a means to develop and manage enterprises as a whole. Workplace learning has its roots in adult education with a clear focus on the individual as the learner. However, neither organisational learning nor workplace learning comprise unequivocal research traditions.

The two traditions share the understanding of the locus or site of learning as being the workplace or the organisation. The workplace/organisation *is* the learning environment and constitutes the learning community. This means that learning takes place while working as a side benefit of being at a workplace and in an organisation. Thus, workplace learning is defined by its site: the workplace as a social organisation and as a physical (material) entity. This way of conceptualising workplace learning recognises that learning takes place through participation in social relations of practice and occurs while working on tasks and taking part in everyday organisational life. Important themes arise from this understanding: how to

understand the relation between context and learner; the relation between formal and informal learning; the issue of reproductive and developmental learning; and the issue of conflict and harmony in workplace learning.

Context and learner

Two major influences emerge in the process of narrowing the field down to literature in which the concept of learning is pivotal. On the one hand we find cognitive, psychological and individual learning theories; on the other hand, we identify situated, social and cultural learning theories. These two main strands of thinking can roughly be characterised according to their main focus. The first category focuses on the importance of individual characteristics and learning processes; the second category focuses on the importance of the social processes, social environments and conditions for learning. Many studies try to balance the two different approaches and are thus a combination of the two, but they are still differently played out on the continuum between focusing on individuals and contexts. However, Nordic research on workplace learning has always had an eye towards the contextual factors affecting workplace learning, while still recognising the importance of individual characteristics like motivation, self confidence and prior experiences. At the same time most researchers consider learning and competence development as mainly related to individuals. Nevertheless, there are researchers who attempt to shift this focus from individuals to collectives or groups of people.

The main focus in research on formal learning is placed upon individual learning, whereas research on workplace learning has created a growing interest in the nature of collective, informal learning. A focus upon individual learning in workplace learning is nevertheless also found in the literature and its definitions. Ellström (1996), for example, defines learning as relatively lasting changes in individual competences as a result of interaction with the environment, whereas Engeström (1999, 2001) places a stronger emphasis on the collective (cultural-historical) nature of both learning and knowledge. Here, learning can be seen as grounded in groups of colleagues, teams or networks. Learning while working is subtle and often hard to identify, but it takes its cue from action, interaction and communication (Döös, 2004; Granberg, 1996). Collective learning can be defined as a readiness for action developed by individuals through dialogue and joint reflection about individual experiences and meaning structures. The organisational arrangement of interaction and the skills developed jointly and individually are important for learning processes at work. Hence learning and competence development are understood to be embedded in the relations and networks of the organisation as well as of individuals.

Relations between formal and informal learning

The distinction between formal and informal learning is an important one in the research literature on workplace learning. Formal learning is defined as what happens in planned teaching or counselling activities in formal educational institutions where learning is the explicit goal. Informal learning is learning that takes place outside these arenas and as an integral part of (or sometimes a side-effect of) in everyday work activities. Some researchers further distinguish between informal and incidental learning, where incidental learning is learning that arises as a by-product of other activities. Incidental learning is not intentional, while informal learning can be intentional. Incidental learning can then be regarded as a sub-category within the concept of informal learning. The distinction between incidental and other types of informal learning is not very prominent in the literature reviewed; the main distinction is that between formal and informal learning. Shifting research on learning into the workplace has therefore re-directed the focus from formal to informal learning. Instead of dealing with how to best arrange and conduct formal learning provision in the workplace, much research is about how to organise daily work activities to support informal learning more effectively (see here: Döös, 2004).

Re-situating learning from the classroom into the workplace has, in the Nordic countries, been inspired by what we may call the apprenticeship approach to learning. This approach implies that learning is situated and unfolds through participation in communities of practice (Lave and Wenger, 1991) and in which the individual or the subject is viewed as a network of relations while knowledge is conceptualised as distributed between individuals and the structures of the context (Nielsen and Kvale, 1999). In accordance with this approach, researchers are looking for learning resources outside the current educational system that may be potentials for workplace learning. Nielsen and Kvale (2006), for example, elaborate on what they call a “landscape of learning”, which includes learning in a community of practice, learning through participation in practice, learning through assessment in practice and learning barriers in the workplace.

Many Nordic researchers point out that workplace learning should not replace school-based learning, but that the two can complement each other (Andersen et al., 2004; Aarkrog, 2005; Bottrup, 2005; Bottrup & Jørgensen, 2004; Ellström et al., 2003; Illeris and Samarbejdspartnere, 2004; Jørgensen, 2004; Rasmussen, 2006). Schools function within a teaching/learning rationale while workplaces function within a production rationale. This makes them appropriate for different types of learning. Learning in schools is separated from everyday practice and more abstract whereas workplace learning is closely connected to everyday practices and provides specific working skills. Illeris and Samarbejdspartnere (op. cit.) argue that workplaces are the best settings for directly work-related learning, while schools are better suited for

broader and more general education (that is, for democratic and personal development as well as theoretical knowledge).

In spite of this broad consensus that school-based and work-based learning are two different types of learning which can provide learners with different skills and knowledge, it is still difficult to bridge the gap between their different rationales. However, both Jørgensen (op. cit.) and Aarkrog (op. cit.) argue that the dual system of vocational training with its combination of school-based and work-based learning is valuable. Jørgensen sees the strength of the system in its ability to establish a viable interplay between the production rationale of the workplace and the schooling rationale of educational institutions, as well as between the subjective rationales of individuals based on their interests and expectations to *both* education *and* work. Aarkrog's point is that learning opportunities in school and at work are not superior or inferior to one another, but that we need to learn more about their different learning potentials in order for the specific parts of the curriculum to be connected with each setting. Both writers emphasise that the vocational training system needs modernisation and renewal in order to utilise the advantages of both school-based and work-based knowledge more effectively.

Reproductive and developmental learning

Nordic research on workplace learning makes much of the distinction between reproductive and developmental or innovative learning (Ellström, 2005). The idea is that workplace learning has a double nature. On the one hand, reproductive learning means that the learner acquires knowledge and routines already applied in the workplace. Reproductive learning is connected to short-term organisational arrangements. Developmental learning, on the other hand, means that new knowledge is created by individuals or groups at work. Developmental learning is connected to organising for long-term development. The two kinds of learning do not exclude each other, but many companies give reproductive learning priority and, by focusing on short-term demands of production at the expense of innovation, relegate developmental learning to a quieter and less official existence at the organisational margins. Ellström, however, argues that reproductive logic requires developmental logic, and that it is up to the different actors to create a balance between the logic of production and that of development. He further argues that the different parties (employers/managers, unions and employees) need to take an interest in organising work *both* for short-term production efficiency *and* for more long term development. Ellström's position is reflected in much of the research on workplace learning as it focuses on the conditions for and processes of developmental or innovative learning (see also: Nielsen, 2004).

Reproductive versus developmental learning can be compared with the distinction between reproductive and expansive learning (Engeström, 2001). In one sense the two pairs of concepts are comparable: they both make the distinction between (a)

learning something that is already known and applied in the work of the organisation and (b) learning something qualitatively new, which changes the way things are perceived or done. Given this, there are also important differences between the two conceptual pairs as they rest on different theoretical foundations.

Ellström's focus is on individual and group learning in the workplace, and within his perspective human action can be divided into different types or levels: routine actions; rule-based actions; knowledge-based actions; and reflexive actions. He defines learning as relatively lasting changes in individual competence as a result of personal interaction with one's surroundings. Learning is ultimately connected to individuals and their performative competences. However, in this model learning and competence development are relational concepts that focus on individual capacities in relation to environmental demands. Learning is a continual process that can be formal as well as informal, positive as well as negative. Competence can be intellectual, manual or social, and it involves attitudes as well as matters of personality. The basis for learning is created through the activities in which individuals become involved. Learning depends *both* on individuals' motivation and background *and* on the structural factors of their environments (Ellström, 1996).

Engeström's (2001) concepts of reproductive versus expansive learning are based upon activity theory and a cultural-historical understanding of learning, in which learning is understood as a collective and contextual activity. Activity theory is oriented towards understanding historically specific local practices, their objects, mediating artefacts, and social organisation. Based on a dialectical theory of knowledge and thinking, focusing upon the creative potential in human cognition, it is a development-oriented theory that seeks to understand and influence qualitative changes in human practices over time. The theory of expansive learning offers a framework for analysing the interplay of the object under construction, the mediating artefacts, and the different perspectives of the participants in a progression of collectively achieved actions.

Engeström defines expansive or innovative learning as collaborative learning in work organisations that produces new solutions, procedures, or systemic transformations in organisational practices. Expansive learning has a number of steps: questioning; analysis; modelling a new solution; examining a new model; and implementing the new model. Object/problem definition is crucial in innovative learning, where the formation of a shared object is analysed as a collaborative achievement, so that such expansive learning is generated in the meeting of different perspectives. Consensus and harmonious brainstorming sessions where "members think alike" do not trigger innovative learning; innovative learning can take place when different perspectives are exchanged and debated. These perspectives are socially anchored in different positions and are not merely individual-psychological properties. Innovative learning and knowledge creation is thus collaborative and constructive in nature (Engeström, 1999).

Conflict and harmony

A number of researchers concur with Engeström in pointing to the importance of different views and perspectives for the facilitation of expansive, innovative or developmental learning. Groups in complete harmony share ideas, and this similarity of perspective does not act as a constructive starting-point for creating innovative and new solutions. In line with this understanding of the importance of differences, Elkjær (2005) – inspired by Dewey's pragmatic learning theory – understands individuals and context as connected in transactional processes. Experience or culture changes through the conjunction of disjunctive situations in which routine actions and understandings no longer work. In these uncertain situations, reflective thinking or inquiry can create opportunities for new ways of understanding and acting. Inquiry defines and dissolves the uncertain situation through the use of ideas, hypotheses, theories and concepts. In this process, different perspectives and interpretations of the situation can be fruitful because they can open the eyes of the collective to new ways of perceiving their situation and resolving the issues it raises for them. However, when perspectives differ too much from each other, it is preferable not to force dialogue – which cannot really take place – and to recognise the reality of insurmountable tensions (Elkjaer, 2005).

Granberg and Ohlsson (2005) have studied collective learning in teams. Their approach to learning combines social constructivist and cognitive perspectives in which individuals are active co-constructors of learning. In this model, collective reflective conversations about both past and future events and actions are crucial for learning in teams. Collective understanding of task agendas generates increased coordination of actions within the team and increased collective rationality of its actions. Developmental learning – in which new rationalities of action result from collective reflection – can sometimes conflict with management planning and with planning in other parts of the organisation. This paves the ground for Granberg and Ohlsson's criticism of over-simplified and harmony-focused learning organisation theories (see also: Elkjaer, 1999). On the contrary, it seems that differences of opinion and conflict drive processes of development and learning in organisations. Reproductive learning does not hold the same element of controversy; here, teams tend to stay within the framework set up by management.

In a study comparing workplace learning in a traditional industrial-based organisation and in two post-bureaucratic knowledge-based organisations, Elmholdt (2006) challenges the positive connotation of expansive, innovative or developmental learning. His research support the generally accepted notions of reproductive learning as particularly related to bureaucratic organisations and industrial production, and innovative learning as particularly related to post-bureaucratic organisations and knowledge production. At the same time, the findings challenge the notion of a discontinuity between the two forms of organisation. One case showed the harmful consequences of too much reproductive learning, hampering

organisational capacity for flexibility and adaptation to environmental change. Another case showed how the consequences of innovative learning prevent organisational capacity for continual production of high quality products *precisely because* it lacked reproductive learning processes. The study indicates that innovative learning alone is insufficient – it requires the complementarities of reproductive learning in order to direct workplace learning towards survival and competitiveness of the organisation (see also: March, 1991).

Organisational motivation for workplace learning

The motivation of organisations for workplace learning varies and depends on the character of the industry and company as well as on employees' and managers' skill levels. In an article on recent reforms of vocational training in Sweden and Finland (based on research and policy documents and up-to-date national data sources), Lindell and Stenström (2005) argue that both nation-state and company motives for pursuing workplace learning can be economical, educational, social and cultural. This motivational range is demonstrated by the available research on organisational motivation for workplace learning: some emphasise economic advantages, others focus on ethical issues (health and well-being of employees) and yet others see workplace learning as a tool for maintaining existing power structures or as a relatively insubstantial expression of current management trends.

In this context, Ellström and Ekholm (2004) explore the main reasons why companies implement different kinds of competence development – including through workplace learning – for their employees, distinguishing between problem-centred and opportunistic motives. Problem-centred motives mean that the learning initiative is part of a larger development strategy, which is the best motivation for learning. Opportunistic motives are extrinsic, as, for example, in exploiting a situation that can secure access to external resources for competence development.

Many researchers use Ellström's distinction between a logic of production and a logic of development in workplaces to characterise organisational motivation for workplace learning. Companies that compete on large-scale fast here-and-now delivery will tend to depend almost solely on production logic; they are less motivated to spend resources on development. More knowledge-intensive companies with innovation and flexibility of production as central competitive factors are more motivated to work on the dual basis of production *and* development logics.

According to Döös (2004), one of the main motivations for companies to invest in workplace learning is that market success depends upon employee competence. Based on a qualitative study carried out in 2000 of four software engineering teams working for the Swedish telecommunication company *Ericsson*, she concludes that in companies working at the driving-edges of their own knowledge and that of their industrial sector, it is especially vital to support and enhance employee competence

development and learning (Döös et al., 2005). Jørgensen (2004) makes a similar point in arguing that workplaces need innovation and flexibility from their workers, and for this reason they have an interest in promoting workplace learning.

Nilsson's (2003) qualitative studies of workplace learning in four small manufacturing companies that operate as team-based organisations indicate that such companies may invest in workplace learning for both humanistic and competitive/economic reasons. Nilsson argues that work environments which facilitate and stimulate learning and competence development positively influence the health, wellbeing and personal development of their employees. At the same time, learning can also enhance the organisation's ability to renew and develop, and hence increase efficiency and competitive power. Kock's (2002) studies of manufacturing companies with team-based production also found that the companies were motivated *both* by the wish to achieve more efficient, quality-oriented and flexible production *and* by the aspiration to develop work and task profiles that lend greater responsibility and wider possibilities for workers to increase their level and range of competences.

Ellström, Gustavsson and Svedin (1996) report on an action research study conducted in the framework of a development programme for process operators and their managers working at *Holmen Paper AB* in Sweden, for which the researchers acted as consultants/evaluators. They found some crucial reasons why companies are not motivated to give workplace learning a high priority. The context is vital: both external (position in the market) and internal (business strategy, organisational structure) contextual factors limit or extend possibilities for different actors and groups within the company. Educational activities are limited by external contextual factors such as trade competition, which provides low short-term profitability for the company. Business strategies based on large volume production at low cost together with an organisational culture directed solely towards efficient production and production technology (and hence not towards development of organisational and employee competences) constitute internal contextual factors that limit educational activities.

To assess the impact on lifelong learning in practice, Rönnqvist and Thunborg (1996) studied employee development activities among hospital staff (doctors, nurses and assistant nurses). They understand lifelong learning as a process in which individuals continue to learn throughout life, regardless of their circumstances and inner dispositions. They concluded that lifelong learning did not have much impact on hospital employee development as not all occupations were equally included in the education and training activities provided and those without current employment in hospitals were entirely left out. Instead Rönnqvist and Thunborg (op. cit.) saw employee development as a tool to maintain existing power structures or perhaps as a way for organisations to show that they are prosperous and oriented towards development.

Learners' motivation for workplace learning

There is broad consensus that learner motivation is vital for the success of workplace learning initiatives. Motivation is influenced by a combination of individual and social factors (Ellström, Ekholm and Ellström, 2003; Ellström, Gustavsson and Larsson, 1996; Hultman, 1996; Illeris, 2006a, 2006b; Wahlgren et al., 2002). There is, however, a difference between employees by level of formal education and qualification. Most of the relevant research has focused on low-qualified employees, whose motivation for (lifelong) learning is difficult to generate, not least because they often have poor experiences with school and lack confidence in relation to educational activities. In contrast, the learning potential of workplace learning resides in its concrete, work related, practical and informal character.

Ellström, Ekholm and Ellström (2003) list a variety of factors that influence workplace learning motivation amongst those employed in the care work sector. Their research indicates that motivation depends on a combination of how their work is organised and experienced, together with individual background attributes. Motivation for workplace learning is connected to general work motivation, which itself depends on many different factors: whether work is seen as meaningful and important; whether employees feel personally responsible for their work output; whether individuals can judge the result of their work; and individuals' overall attitudes towards the concept of work itself.

Ellström, Gustavsson and Svedin (1996) studied process operators and found motivation to be based on a combination of individual characteristics (competence, faith in own ability), character of work, work tasks and economic, political and cultural factors in society and organisation. They emphasise that participation in workplace learning initiatives is not always voluntary. Employee pressure, group pressure, sanctions, dependency and relations of power in the workplace play vital roles. In a more recent article based on the same study Gustavsson (2005) stresses that individual motivation is vital for tapping learning potential, so that where employees are not really participating voluntarily in learning, this potential is inevitably constrained.

Illeris' (2006a, 2006b) research with low-educated workers reaches similar conclusions. Using a primarily psychological framework of explanation, he places key importance on the concept of ambivalence. In rational terms, such workers want to participate in lifelong learning activities, but in emotional terms they have no wish to do so. They know it is important to upgrade their skills, but their poor experiences with formal schooling and lack of self-confidence break this potential motivation to participate. The success of work-related learning initiatives very much depends on taking up personal and respectful contact with such workers, and on ensuring that participation is (and is understood by them to be) voluntary. It is good counselling and the principle of choice that should drive efforts to generate participation in

learning, and not the practice of directed participation: if learning is to be successful, then participants must take responsibility for their own learning.

In general, adults display greater motivation for what they see to be relevant and useful for their everyday activities (Illeris, 2006a, 2006b; Jørgensen, 2004; Thång and Wärvik, 2005).

Education and training opportunities for working adults require flexible structures of provision so that participation can be readily combined with everyday working life. Based on two case studies of the implementation of an IT-assisted model for integrating formal and informal learning in hospital and industrial settings, Svensson, Ellström and Åberg (2004) also found that flexibility and accessibility (of both content and practical arrangements) increases learners' motivation. This also implies wholehearted investment in advice and counselling for low-skilled workers (Illeris, 2006a). Based on the findings of a qualitative evaluation of Danish and British employer and trades union initiatives, Plant and Turner (2005) emphasise that accessible guidance in the workplace is an increasingly significant aspect of promoting continuing learning for workers who have not recently participated in training or education. They underline that this will require resources, legal frameworks and the co-operation of education and training providers, employers and guidance bodies.

Jørgensen's (1999) research and evaluation studies on workers in the Danish meat processing industry found that they are generally not very positive towards education and training. Their jobs are primarily based on physical routines, which do not lend themselves readily to acquisition through reflection. Those who do participate in educational activities do so for their own personal development, unconnected with their work. These findings, however, contradict other research findings that stress the importance of the direct relevance of adults' education and training participation for their work (Elkjaer, 1995). Illeris (2006a) adds in this connection that motivation for learning amongst low-qualified employees is positively encouraged by formal recognition of their efforts and the outcomes together with the practical usefulness of what has been learned in the workplace. We return to this point further below in the context of recognition of prior learning.

In a qualitative study of seven small companies employing fewer than 200 people, Nilsson (1996) looked into ways to improve conditions for learning and development in workplaces, concluding that both managers and co-workers exert a significant influence on individual attitudes towards and motivation for participating in education and training activities. Where both managers and co-workers concur in the interest and importance of learning, individual motivation to participate rises – this means that motivation has a collective dimension, which appears to operate via the normative expectations of relevant reference group(s). Both Nilsson's (1996) research and Hultman's (1996) theoretical work on the importance of informal learning for lifelong learning conclude that external reward is less important for the effect of educational

activities than the inner rewards that result from motivation itself, everyday contextual surroundings and the outcomes of learning as translated into achievements.

From different perspectives, Nilsson (1996) and Karlsson (2005) each emphasise the connection between workplace learning, health and well-being. Nilsson's starting-point is that the opportunity to learn and develop at work *as a person* is essential to good health. Karlsson takes a more critical stand: the constantly accelerating pace of change raises the issue of limits to employees' capacity to cope, given the rising incidence of sick leave, burn-out and various kinds of psychic stress and illness.

On the basis of a comprehensive review of learning motivation, Ahl (2004, 2006) questions the viability of the concept of motivation altogether. Motivation is generally seen as something residing inside the individual, something that a person 'has' or 'lacks'. Inspired by Foucault, Ahl suggests that motivation is a relational construct that is used as a tool for management and control by those who have the power to designate who 'has' motivation and who 'lacks' it. Hence, adults' motivation or the lack of it should be understood in relation to those who formulate the problem. The key question is not what generates motivation for learning but rather to identify which actors state that motivation is a problem, why they see this as a problem and what kinds of conclusions they draw from their analysis. This approach to understanding motivation uncovers power relations in operation. It also demonstrates how discourses that define lifelong learning as a necessary political response to economic and technological determinism come to construct adults as 'learning-deficient'.

Recognition of prior learning

The issue of recognition of competences gained through informal workplace learning is the subject of intense political and public debate in the Nordic countries. Many practical development projects in this area have been conducted, but to date systematic theory and research is sparse, which accounts for the brevity of this section.

The concept *realcompetence*, primarily used in Scandinavian and German contexts, is defined as the total sum of competences possessed by an individual as developed by formal as well as informal learning, that is, *both* learning in the formal education and training system *and* learning in working life *and* learning in everyday life. Norway in particular has attempted to develop a system for the recognition of *realcompetence*. Rostad and Mohn (2006) report on a *realcompetence* development project conducted by the Norwegian company *Vox*, which is owned by the Ministry of Education and Research and has a mission to promote learning in working life and to contribute to workplace competence development. The project's main aim was to develop a national system for documentation and accreditation of adults' *realcompetence* with legitimacy both within the formal education and training system and on the labour market. The report draws a picture of an initiative and

developmental work that faces significant problems and has not yet been fully accepted by formal education and training systems or by employers and workplaces.

Skule's (2004) mixed-method evaluation study with managers, employees and human resource specialists in 24 Norwegian companies together with educational institutions' applications officers shows that the content of that which is recognised to be *realcompetence* results from negotiations between different interests and traditions of knowledge and skill. Two different purposes are attached to recognising *realcompetence*: as a tool for competence development in companies; and in order that education and training systems can accredit such learning outcomes for gaining access to formal courses and for giving partial credit towards a formal qualification. The intentions are good, but it has proven difficult to realise these in practice: education and training systems on the one hand and employers and workplaces on the other hand have very different ideas about what constitutes competence, and these are difficult to bridge. Educational and training systems focus on curricular content and requirements whereas employers and workplaces look at concrete skills and duration of work experience. Their differing needs and interests make it hard to find common ground. For example, employees may be nervous that tools for measuring competences acquired at and through work could be used to justify introducing greater internal salary differentials or downsizing decisions on who to make redundant. In Norway, the documentation of competences acquired through work has nevertheless had some effect on the education and training system: individuals can now gain access to further education and training on the basis of skills acquired through work. It has, however, had very little effect as a tool for competence development in companies.

Illeris (2006a, 2006b) approaches the question of recognition of workplace learning from a quite different perspective; as noted earlier, the concept of ambivalence towards learning – in particular, towards *organised* education and training activities – is the key issue to be addressed with respect to low-qualified workers. And he concludes that recognition of learning outcomes is crucially important for generating a more positive approach to learning on their part. Interestingly, such learners want and expect individual evaluation of their efforts and achievements; they seek proof of what they have learned and how well they have done. However, they do not want to take traditional examinations and tests (with which they are likely to have had poor experiences) – rather, they want to receive a written evaluation from their teachers and trainers which details their achievements *as a continuous learning process* and explains *how and how well* they have reached these outcomes. In addition, such learners value the relevance of their newly-gained knowledge and skills for the practical working context: they seek practical recognition and usefulness for what they have achieved.

Contexts and conditions for workplace learning

Here, the distinction between internal and external contextual factors is of central importance for analysing the conditions for workplace learning. External contextual factors include the market situation for a company or a business activity sector (Döös, 2004; Ellström, 1996; Nilsson, 2003). Similarly, in comparing recent vocational training reforms in Finland and Sweden, Lindell and Stenström (2005) demonstrate that nation-state policies also influence the range and scope of work-related learning. Global capitalism as such does not exert the sole determining force in these matters, but developments depend on specific mixes between market demands, trades union activities, state regulations, management strategies and employee orientations.

Nordic research underlines the importance of long-term management support for workplace learning and in particular when understood as an integrated part of the way businesses are run and not as a separate activity (Döös, 2004; Ellström, 1996; Nilsson, 1996; Svensson, 2005). This involves a willingness to relinquish strong management hierarchies that exert unquestionable authority, together with the willingness to allow for debate and discussion, thus recasting development activities as continuous activities alongside production activities. Good management of workplace learning needs to be more about organisational development in general than just about which courses to offer employees (Döös et al., 2005; Ellström, 1996; Ellström, Gustavsson and Larsson, 1996; Ellström and Nilsson, 1997; Nilsson, 1996, 2003; Svensson, 2005).

Nordic research has also addressed itself to the factors that hinder the development of good quality workplace learning. Several writers point to the intensification of work that is a consequence of rationalisation and downsizing, hence placing pressure on time (Döös, 2004; Kock, 2002; Svensson, Ellström and Åberg, 2004). Others underline the importance of dismantling old-fashioned hierarchical organisational structures (Abrahamsson, 2001; Davidson and Svedin, 1996; Jørgensen, 1999; Nilsson, 1996; Rönqvist and Thunborg, 1996; Thunborg, 1999). Karlsson (2005) calls for more research about how to prepare and equip people to handle change positively.

How people learn at work and what kinds of working environments best support such learning is the most popular theme for Nordis research in this field. Some find that introducing variation in work tasks improves the quality of workplace learning (Andersen, Clematide and Høyrup, 2004; Kock, 2002; Tikkanen, 2002; Wahlgren et al., 2002). Others place emphasis on constructing working environments with high learning potential, so that problem-solving tasks stand at the centre (Davidson and Svedin, 2004; Ellström, 1996; Ellström and Gustavsson, 1996; Kock, 2002; Nilsson, 2003), with access to information and in-depth theoretical knowledge (Ellström, 1996) and supporting local experimentation with alternatives (Ellström, 1996;

Wahlgren et al., op.cit.). Influence on and participation in the formulation of goals, plans and organisational development are also held to play a positive role (Davidson and Svedin, op.cit.; Ellström, 1996; Ellström and Gustavsson, op.cit.; Granberg and Ohlsson, 2005; Kock, op.cit.). This goes along with opportunities for exchange of experiences and reflection (Bottrup, 2005; Davidson and Svedin, op.cit.; Döös, 2004; Ellström, 1996; Ellström and Gustavsson, op.cit.; Granberg and Ohlsson, op.cit.; Tikkanen, op.cit.; Wahlgren et al., op.cit.) and facilitating group processes, organisational culture and organisational structures that promote learning (Döös, op.cit.; Ellström, Ekholm and Ellström, 2003; Ellström, Gustavsson and Larsson, 1996; Granberg, 1996; Kock, op.cit.; Nilsson, 2003; Svensson, 2005; Tikkanen, op.cit.).

Svensson (2001) underlines that the distinction and the balance between reproductive/adaptive and expansive/innovative/developmental learning (as discussed earlier) is an important precondition for the effectiveness of workplace learning. Reproductive/adaptive learning works where goals and the focus for action are clearly defined, whereas expansive/innovative/developmental learning works when goals and means can be questioned and experimenting with alternatives is encouraged. Managers and employees must be able to work together with the support of their employer; there must be sufficient dedicated time and space available for reflection and freedom of action.

Similarly, Ellström and Gustavsson (1996), basing their work on the distinction between rationalities of production and of development, conclude that if companies wish to support developmental and not only adaptive learning, it is necessary to integrate technology, learning/development and production. This typically implies changing work organisation so that problem-solving, reflection and planning become an inherent part of operators' working tasks, which implies blurring the distinctions between operators' and engineers' work profiles. Further, it implies institutionalising reflexive action to enhance developmental learning as an ongoing activity or continuous approach to daily work.

These writers also emphasise the role of management in this integration of technology, production and development: managers are responsible for combining business, organisational and learning development processes so that development itself – and not only production – becomes an inherent part of company strategy. Where production issues alone dominate company strategy, company time is seen to belong to production, so that time for development activities is time that is 'stolen from' or 'lost to' production (Ellström, 1996). Mass production on lean organisation principles (high efficiency, low cost, low staffing levels) curtails the space available for the development of products, organisation and competences – all this works against organisational learning potential, most particularly for those working in lower-level jobs. Basically, Ellström, Gustavsson and Svedin (1996) see workplace learning as dependent on good management with an understanding of learning processes

and willingness to integrate development and production and thus give developmental activities equal priority with production.

In contrast, those studying workplace learning amongst highly-qualified employees in the Swedish telecommunications industry (Döös and Wilhelmson, 2005; Döös et al., 2005) describe working environments situated at the driving-edge of current knowledge, which *must* facilitate continuous learning in order to innovate and so stay in the competitive lead. In such workplaces, creating the organisational capacity for learning is not an option. Their research was able to distinguish three types of learning in such contexts: learning basic knowledge; co-creating new knowledge during work; and learning how to develop innovative knowledge by interrogating existing knowledge against information and experience that does not fit expectation or prediction. It appears that whilst learning basic knowledge is typically an individual learning process, co-creation and innovation take place in a collective learning context.

Svensson's (2005) research into learning environments in knowledge intensive, innovative units in multinational companies in five European countries²² identifies two particularly important features for learning in such contexts. Firstly, collective values and judgements influence learning; secondly, the content of the learning process includes cultural elements. The learning context is defined *both* by the opportunities offered by the external environment *and* how the learner uses these opportunities. Employees working in knowledge-intensive multinational companies enjoy great freedom to decide *how* to achieve their work-tasks and goals, but this freedom is combined with tight deadlines on *when* they must deliver the necessary outcomes – which may not necessarily be precisely known in advance, of course. This obviously demands creativity and innovation, that is, it demands developmental learning as an inherent element of working processes. It also demands the coordination of individual working processes in order to be able to meet deadlines, that is, it demands cooperation between individual employees. Svensson concludes that knowledge-intensive companies have to take a deliberate approach to learning at all levels of the organisation; this includes developing and implementing internal company learning strategies, led by dedicated education and training specialists (see also Nielsen, 2004).

Conclusion and discussion

This review has addressed itself to studies on workplace learning anchored in a *concept of learning*. We also focused on specific workplaces as contexts for learning rather than on networks for learning that operate between and amongst sets of

²² Denmark, Ireland, The Netherlands, Sweden and the United Kingdom; qualitative methods were used to study managers, employees and trades union representatives in 22 working units in a range of industrial and service sectors.

workplaces and groups of workers. In consequence, as noted at the outset, we have not included studies grounded in other – and in principle equally important – perspectives. The focus on concepts and theories of learning leads to organising the body of research literature along two sets of dualisms: firstly, whether learning is seen primarily as an individual or as a social process; secondly, the distinction between learning as reproductive/adaptive (the production logic) or as expansive/innovative/developmental (the developmental logic) in nature. These dualisms represent the difference between process and outcome and between accommodation to change and genuinely innovative change. In some cases, writers relate individual and social learning processes, but this is by no means always the case; in some cases, production and developmental logics can be seen to run alongside each other - also this is by no means always the case.

What happens if one concludes that quality workplace learning relates the individual with the social and the adaptive with the developmental? It is tempting to summarise our review with one single normative statement to the effect that enhancing workplace learning simply requires good management that allows access to a variety of forms of participation. But things are not quite as simple: does this mean (as some would argue) that good management means the capacity to construct clear goals and focus for individual competence development, or does it mean being able to create an organisational structure that explicitly fosters development processes in all respects?

Our review indicates that effective management behaviour depends on paradigms of management philosophy in terms of the relation between work and development. One such paradigm defines work as constituted by a series of demands and tasks that – in Ellström's (1992) terms – require solutions to relatively closed problems. Closed problems imply that there is only one way to see the problem, and that there is one right procedure leading to one right solution. In such circumstances, good management would mean setting clear goals and giving precise focus: clarifying priorities, providing information, giving clear directions and supporting the adaptive learning required to fulfil the task requirements. This would lead to fewer implementation errors and efficiency gains, that is, a rise in workplace productivity. Work motivation is based on external rewards and perhaps sanctions when errors do occur.

Alternatively, one could begin from the paradigm of work as sets of open problems: issues can be seen from differing perspectives and there are different ways to reach varying solutions. Employers' and managers' thinking may be challenged by such a perspective; alternatively, they may actively construct work in this way so that it constitutes an attractive challenge for employees, who are required to meet a broad range of demands and to develop and use a broad range of diverse competences. Instead of setting clear goals, management would support processes in which employees can influence goals and how to achieve these. In this model, employees

represent resources indispensable to the enterprise. Furthermore, work is made up not simply of short-term implementation activities but also of longer-term developmental activities. This may require changes in organisational structure to enable participation and to harvest high-value employee competences. Work motivation in this kind of context relies on having a meaningful and challenging job that offers possibilities for personal development and developmental learning, which in turn is understood as a set of ongoing social processes in a complex, innovation-oriented environment. Learning thus becomes an integral aspect of organisational development and, in reverse, organisational development necessarily implies learning.

These two paradigms represent two clusters of management style, work motivation and distinct processes of workplace learning. In conclusion, we return to the two dualisms described above (individual/social and adaptive/developmental): these belong to a wider set of dualisms that separate, for example, learning processes from learning outcomes, or formal learning from informal learning. By conceptualising learning in dualistic terms, we tend to reproduce the cultural and institutional gaps between work-based and school-based learning and we tend to reproduce an understanding of workplace learning as a matter of adjusting e.g. the human resources to new demands for competences and competence development rather than to see workplace learning as part of a political agenda in which there is inherent power and tensions. An alternative way forward would be to look at learning processes *and* outcomes, adaptation *and* development as elements of a single relational logic in which the continuous formation and re-formation of subjects, workplaces and societies themselves are situated in concrete settings and derive from tensions and conflicts between networks of stakeholders and interests. This would imply a research agenda that not only focuses on the relations between individuals and workplaces but also opens out towards analysing how economic and political agendas and discourses co-constitute individuals, workplaces and the learning that can/cannot or does/does not take place in these key sites of social action.

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Competence development as workplace learning in Thailand

Patcharawalai Wongboonsin and Areeya Rojvithee

Introduction

This paper deals with the background, justification and motivation for together with the management and recognition of workplace learning (WPL). We conclude with an indication of topics for further research in Thailand. The information and analysis in this contribution rests on a broad review of human resource research literature from Thailand and relevant documentary archives.

Both governmental and non-governmental factors have contributed to the motivation for WPL. Its management at workplaces is connected with industrial sectors (manufacturing and services) and the extent to which companies are learning organisations; we can also identify problems with respect to sustainability and reach of WPL. Recognition of WPL outcomes is contingent upon cooperation between employers and employees; in Thailand, the “competency visa” plays an important role. We offer case studies to illustrate these points.

During the mid-1980s and 1990s, the Thai economy was growing fast with labour-intensive activities to the fore. Asian Development Bank analyses (ADB, 1994, 1998) found that Thai economic development and competitiveness were being held back by the shortage of technically qualified personnel; the country’s economy could neither increase its market share nor move towards higher-value manufacturing.

By the close of the 1990s, Thailand fell into the middle range of Asian countries as far as income levels, competitiveness and technology and skills levels are concerned. Thai productivity levels had reached less than half the levels in developed Asian economies (valued at US\$ 10 670 compared to US\$ 38 870 in Japan and US\$ 40 482 in Korea; Wongboonsin and Wongboonsin: 2004). In addition, despite virtually full enrolment in primary education for today’s young people, participation rates in secondary and tertiary education remain comparatively low.

Wongboonsin (2003) forecasts positive labour force development in the coming years, based on the rising supply of those entering the labour market after having completed upper secondary education from 7.44% in 2003 to 21.28% in 2025. Nevertheless, the Thai economy urgently needs to shift the fulcrum away from labour intensive production with low-skill workers towards value-added production based on higher-level technical skills in the workforce and qualified managerial expertise. As

Table 1: Educational Participation Rates: 2004-2006

Education	Age Group	2004	2005	2006
Primary	6-11	106.54*	106.23*	107.28*
Lower Secondary	12-14	91.15	91.64	92.64
Upper Secondary	15-17	59.63	60.10	62.74
Tertiary: up to a Bachelor Degree	18-21	34.33	40.00	44.93
Tertiary: beyond a Bachelor Degree	18-24	20.74	24.03	27.10

Note: * Some pupils are older than 11

Source: *Office of the Education Council, Thai Educational Statistics 2007*

Wongboonsin and Wongboonsin (op. cit.) report, Thailand's vision is to become the hub for niche industries over the coming two decades, and in order to reach this aim national policy will stimulate industrial change and seek to upgrade workforce skill levels, particularly through strengthening lifelong learning in order to raise supply and take-up of continuing vocational education and training (CVET). In this context, workplace learning has become a growing trend in Thailand. Zeufack (1998), in a World Bank study, found Thailand to be performing well (amongst the top three) in its provision of formal and informal training in comparison with Malaysia, Indonesia, Taiwan, Colombia, Mexico, Ghana, Kenya, Zimbabwe and the United States.

The 1997-1998 economic and financial crisis in Thailand brought about company downsizing and closures, and hence reductions in employment levels. In consequence, Thailand joined ASEAN and its Labour Ministry worked together with ASEAN member country counterparts to intensify the focus on workforce training and retraining. Valuable lessons had already been learned from previous labour policies.

Firstly, low investment in retraining workers to meet changing labour market demands had resulted in a lack of the skilled workers needed for economic recovery. Secondly, there was a need to include social security programmes in planning strategies, given that countries with social safety nets were better equipped to weather economic storms. With the financial and technical assistance of the United Nations Development Programme (UNDP), the ASEAN labour ministers adopted a five-year work programme from 2001, in which human resources development and workforce training in the context of globalisation and trade liberalisation were priority areas. Decent work, peer-learning processes and the standardisation of qualifications were given high importance.

Zeufack (op. cit.) noted in the late 1990s that no serious studies had been made to date on the reasons why Thai companies decide to invest in training. A decade later, there are still no systematic studies of the factors that lead employees to participate in WPL. However, Wongboonsin's (2006) review of the relevant literature in this area

identifies six commonly cited factors that influence employers' decisions to introduce WPL. These are:

- most consistently mentioned: the challenges of globalisation, regionalisation and the knowledge economy;
- governmental policy initiatives and supporting mechanisms;
- market pressure affecting prospects for profit making and/or business survival, leading to redefinition of company performance;
- growing recognition of international training standards and quality accreditation systems;
- technological, product and organisational changes in companies;
- vision, leadership and commitment at top management level.

Lifelong learning policy in Thailand

Until comparatively recently, human resources development programmes did not play an active role as instruments for change in companies, neither in direct relation to improving productivity nor in supporting the introduction of workplace learning. The management of human resources in the manufacturing sector was not incorporated into a workplace policy or a workplace management system; managers simply tried to assure that employees followed the rules in force at their place of work.

Government policy on industrial development and promoting investment in human resources was first introduced at the beginning of the 1960s, initially focusing on the modernisation of managerial knowledge and skills (Waywanond, 1990). Today, two ministries share the main responsibility for human resource development in Thailand. The Ministry of Education is responsible for basic and higher education. The Ministry of Labour's Department of Skill Development (DSD) is responsible for the development of the workforce in the labour market, and this means for all those aged 15 and over who are not participating in general further and higher education, with the purpose of acquiring the knowledge and skills needed for well-developed employability. DSD is also responsible for the National Skill Standards and Testing System as well as the accreditation of prior learning (APEL) gained through work experience.

The 1997 Thai Constitution and the Thai National Economic and Social Development Plan guide the government's education and training policies. The Constitution (Sections 30, 42, 43 and 69) specifies that all citizens have both the right and the duty to receive education and training, guarantees academic freedom and emphasises the role of the private sector for the provision of education at all levels. The ninth National Economic and Social Development Plan (Government of Thailand: 2002a) for the period 2002 – 2006 confirms that Thai society should be grounded in learning and wisdom, providing opportunities for all to develop their

capacities for thought, rationality, creativity and continuous learning in order that citizens can cope with a changing environment.

Human resources development (HRD) is rooted in the reform of educational and training so that they convey standardised competences consistent with changing structures of production. Training measures are to include programmes for young people before they enter employment, for the unemployed and for those with special needs. The Social Partners play a significant role in vocational training policy and practice, whereas employers are important actors specifically in relation to company-based training and workplace learning. Individual citizens are expected to take up the opportunities for education, training and lifelong learning that are available.

Educational reforms are framed by the relevant national legislation (National Education Commission, 1999, 2002) and aim to prepare all citizens for a learning society in a knowledge-based economy. The Department of Vocational Education (DOVE) has demonstrated firm commitment to promote cooperation with the private sector by means of its Dual Vocational Training (DVT) programmes, which are based on a training contract and a training allowance. In response to the evident shortage of technical personnel that had emerged from the mid-1980s, policy action by 1997 had resulted in 130 colleges forming alliances with 2,500 companies to train more than 10 000 young people annually (Ministry of Education, 1999; Whattananarong 1999). In the domain of workforce training, the Department of Skill Development (DSD) at the Ministry of Labour is responsible for skill training, retraining, and upgrading skills of the workforce to meet the national qualification standards. DSD acts as a lead institution in establishing a network of skill development institutions, which is seen in relation to job creation strategies.

The system of training is based on practical experience: only 20% of training time is spent on theory, while 80% is used for practice. Courses are offered for technical and non-technical training, services and commerce, including development of basic and soft skills such as leadership, problem solving, communication, decision-making and teamwork, with the aim of promoting employability through lifelong learning as continuing training. Generally offered in training institutes and similar establishments, these training courses can last between two and ten months and on successful completion participants receive certificated status as basic skilled workers.

The 1994 Occupational Training Promotion Act BE 2537 set up the Skill Development Fund to encourage private businesses to organise training for their workforce and to establish and register their own training centres for workplace learning with the DSD. Amendments to the Skill Development Promotion Act (Government of Thailand, 2002b) promote and support occupational skill training for those active in the industrial labour force for the purpose of skills upgrading. Employers who participate receive company tax deductions of up to twice their actual expenditure on training. Organisations with at least 100 employees are obliged to provide training for at least half of their staff. If they do not do so, they must pay a

levy into the Skill Development Fund at the annual rate of some 480 Bath (11 Euros) per employee not receiving training. Companies who do train receive further tax deductions for capital investments and the costs incurred in bringing in training experts; they also receive water and electricity supplies free of charge. Data available to the Ministry of Labour indicate that between October 2005 and July 2006 877,068 employees received workplace-based training in Thailand. This figure equals 10% of the total industrial workforce covered by the Law.

In 2006, the Labour Ministry held public hearings on wage and income legislation designed to guarantee fair wages for employees. The law will set salary scales for all professions in Thailand based on knowledge, skills and experiences, and effective in both public and private sector employment. This would encourage employees to improve their skills, thus reducing the number of unskilled workers and labour migration. Salary scales for 30 of the 85 relevant professions have already been set and at the time of writing, the law was due for adoption in 2007. The cabinet has approved of the Ministerial Regulations of the 30 professions and on the process to consider 13 further professions. However, implementation of the regulations by the industry is not compulsory but voluntary.

The Ministry of Labour and Ministry of Education are also working together to set up a system for transferring credit between accredited vocational and professional skills and general educational qualifications in order to encourage employees to upgrade their knowledge and qualifications on a lifelong basis. Those participating in this scheme would be able in principle to improve their formal qualification level through to university degree standing. This represents an effort to make education and training accessible to the workforce and thereby improve status and/or income. Employers also benefit by rising productivity via higher employee qualification levels.

Finally, Thailand is also actively participating in the ASEM Lifelong Learning for Employability Programme. Developing countries find it difficult to keep pace with technology-driven globalisation – they do not have sufficient resources to improve their knowledge and skill base and to keep abreast of changing work practices. The best solution is to share information and experience, and to cooperate with each other in developing measures for skills development.

Research studies on workplace learning

The available research-based literature shares the notion that WPL is part of the business strategies required to meet the challenges of globalisation. Once an enterprise grasps the implications of a rapidly-developing knowledge-based economy, this strategic conclusion is clear: companies of all sizes take the view that a knowledgeable and competent workforce is one of the most essential resources for business success. The combination between market pressures, the growing impact of international standards and quality assurance systems together with the

introduction of the concept of intellectual capital push employers in the same direction.

Thai companies have begun to raise their expectations with respect to the professional competences of their employees, both in line with the re-engineering of their businesses to respond to technological and economic change, and in adopting international norms for the transparency of business transactions (Lawler, Siengthai and Atmiyananda; 1997, Kongsanchai, 2001). Siengthai and Bechter (2005) have equally asserted that the effectiveness of human resource management is one of the key factors maintaining and enhancing Thai company competitiveness. This first became obvious with the collapse of Asian regional currencies in 1997, but they go on to maintain that subsequently, globalisation processes have brought intensified awareness on the part of Thai employers. Workforce diversity – that is, with differing skills profiles – allows a freer flow of technological, financial and human capital, and of products and services. At the micro level of companies, managers at the operational level have been compelled to balance the link between human resource management and – on the other side – the financial performance of the company, organisational innovation, improvement in firm productivity, empowerment of employees, management of workforce redundancy and management of labour relations. In other words, employers have to adopt a proactive approach to human resource development and management.

In its regional study, ILO (2000) suggests that efforts to bring in WPL by small and medium-sized enterprises in Thailand were partly triggered by their endeavour to gain ISO accreditation and to gain international recognition for the quality of their performance. Although ISO 9000 is no guarantee of the quality of HRD practices, the demands for quality control lead to the introduction of high performance working practices (Ashton and Sung, 2002). In this context, Buddha (2002) reports a case-study of the Khonkaen Hospital, which, in seeking a higher degree of quality accreditation, has relied on formal training courses for strategy formation, documentation and document control, as well as facilitating and auditing skills for junior executives and quality coordinators. Formal training courses on excellence in health service practices and organisation development are also provided.

Vision, leadership and commitment at the top-management level within firms have also begun to play an important role in workplace learning in Thailand. Wongboonsin et al. (2006) suggest that effective and sustainable learning cultures are driven more by business needs and leadership commitment than by policy initiatives. The role of trade unions in Thailand is too weak to make effective demands for workplace learning provision at company level. Sharma (2000) has argued that modern industrial relations in Thailand are still in their infancy and are faced with a fragmented labour movement; the 1956 Labour Act had fallen short of accomplishing the goal of establishing collective bargaining. In 1972, the government sought to provide a framework for negotiating terms and conditions of employment through

labour protection and ordinance provisions, which permitted the creation of non-political labour organisations while also encouraging weak and small labour associations to strengthen their regional bases.

To encourage workers to participate actively and continuously in learning and training, their efforts must yield rewards and benefits. These may take the form of a higher salary, a return in kind or a promotion. In this scenario, it is incumbent upon labour unions to request measures from employers for workplace-based upgrading of knowledge and skills. Current government plans to issue legislation that match salaries with qualification and competence levels (as noted earlier) will use the National Skill Standard Framework as the basis for matching salaries with jobs. Despite Labour Relations Acts providing for greater freedom to organise labour unions, collective bargaining in Thailand has mainly been conducted at company level. No strong national unions exist to bargain for workers at industry level and unorganised workers have had the same rights and privileges as unionised workers, as long as they comprise at least 15% of a company's workforce (Sharma, 1996).

On the basis of a case study in the automotive assembly and parts industry, Sakonkiat (2003) developed a learning organisation model for developing workers' skills at industrial workplaces, consisting of three complex elements:

- external workplace environment (customer competitive companies, IT and innovation, R&D, legislation and standards), internal working environment (policy and communication, industrial relations, organisational culture, R&D, motivation to learn), work factors (task and work changes, task re-systemisation) and factors relevant to employees (task competency, required skills formation, temporary workers' problems);
- the skills required, including task skills, task management skills, work-environment skills, WPL skills and work relationship skills, which themselves include multi-skill, good coaching, IT competence, soft skills, work concentration and conscience, production-control planning, self problem-solving, moral, flexible working, lifelong learning and media competence, work units cooperation and team-working based on small-group activities;
- a seven-step process of organising: analysis of what is happening; analysis of tasks and workers' competences; clarification, determination and identification of WPL problems and their causes; selection of a high-performance strategy to deal with skill deficiency and its causes; development of an action plan; implementation of the action plan; and evaluation with feedback information.

WPL in Thailand follows two patterns: formal training courses and on-the-job mentoring activities, both of which operate at the basic and specific level of skill. Puapongsakorn et al. (1992) conducted a survey on the practice of WPL in 26 industrial and service sectors in Thailand. They found that large firms rely on formal

training courses while small firms prefer on-the-job mentoring activities. Similarly Zeufack (op. cit.) found that workers and firms in the manufacturing sector in Thailand rely heavily on on-the-job informal training to respond to the skill needs of a rapidly developing and expanding economy. 82% of the companies in his sample gave informal training to new workers compared with 58% providing formal training to existing employees. Formal training outside the organisation was more extensively used than in-house training; companies explained this with reference to the abundant provision of government training facilities. Available case studies also suggest that WPL in Thailand mostly covers the skills and competencies for decision-making, problem-solving, communication and foreign languages.

Zeufack (ibid.) also found that the incidence of training activity in Thailand had risen across the mid-1990s and argued, on the basis of data from the 1997/98 Industrial and Competitiveness Survey, that Thai companies do train extensively. Covering five industrial sectors (automotive parts; electronics; food processing; garments; textiles), the data showed that although rates of training were relatively evenly spread by sector, the electronics industry returned the highest rate (95% of companies reporting training) and the textiles industry the lowest, with only one fifth of companies providing training. Sector differences were most marked for formal training and the incidence of training provision was also higher in larger than in smaller companies. Approximately 27% of small companies did not provide any basic informal instruction to new workers compared to around 12% of large firms. These differences were even more marked when only formal training was considered: of small companies, 13% provided training in-house and 19% outside the workplace, compared with respectively 68% and 78% for large enterprises.

Puapongsakorn et al. (op. cit.) found that basic skills training in workplaces was geared towards upgrading the efficiency of the employees in all types of work. The employees also generally have to bear the training costs, either by paying fees or earning a lower salary while attending training courses. A company may advance the payment for training courses while making a contract of services with those employees prepared to attend a training course. At the same time, specific skills training at the workplace is geared towards developing those skills needed by employees in the job they are actually doing. In this case, the employer and the employee share the training costs. This study also found that not all employees had the same opportunities for training, but that well-educated and younger male employees who had been working in a company for a relatively long time and had attained senior positions, especially in larger companies, had greater opportunities for further training and professional development. Zeufack (op. cit.) confirmed in his study that formal training provision was mainly geared towards staff at the supervisory level (90%), followed by technicians (85%) and skilled production workers (79%), compared to 54% of unskilled production workers receiving such training.

ILO's (2000) study of SMEs in Thailand pointed out that that the type of WPL varies for different staff categories. Managerial training is mostly formal, while manual workers mostly learn on-the-job or informally. At the same time, a mix of formal and non-formal training is provided for supervisory staff. Based on a case study of WPL and training for automotive technicians in Rayong province, Puangjoen (1999) found that factories tend to adopt a voluntary approach to training. Training courses are likely to be limited to work safety, basic computer skills, and foreign languages. Meanwhile Tnomrod (2002) could identify rising numbers of training courses oriented to teamwork for factory staff, which were also evaluated as successful in terms of performance outcomes. These training courses followed the classic project development cycle: identification of training needs; programme development; implementation of training; putting training outcomes into practice of real-life work; evaluation and monitoring; output-outcome reports; and modification of training.

Koike and Inoki (1990) found that the use of group working as a strategy in informal training at a workplace improved employees' decision-making while providing them with an opportunity for extensive learning. Yet the results in terms of the contribution to a higher level of employees' intellectual skills and productivity were found to be more impressive in Japanese companies than those in Thailand. Finally, according to Phutesaka's study (2001), training programmes that focus on emotional development in relation to work benefits both employees and their company not only indirectly in terms of happiness but also directly with respect to the quality of work performance.

Sirirat (2002) studied 53 leading hotels in Chiang Mai in northern Thailand, in Bangkok and Cholburi-Pattaya in central Thailand and in Phuket, Surat Thani-Samui and Songkhla in the south of the country. Owned and operated by Thai (and not international) companies, the majority of hotels surveyed employed a personnel or training manager responsible for staff recruitment; they had introduced job descriptions, employee handbooks and policy/procedure manuals. The majority of the employee development programmes took the form of on-the-job training and introduction courses for new staff. Performance appraisal systems for all employees were generally in place, together with rewards or recognition systems, including those based on guest feedback systems. However, few hotels considered career progression for their staff; they were more likely to interview staff when they handed in their notice (exit interviews) and to look at wastage analyses arising from staff turnover.

The Office of the Private Education Commission (OPEC) is currently conducting a study with two private schools in Thailand to explore the concept of the application of ISO 9000²³ on the basis of documentary analysis and expert interviews. As a set of

²³ ISO9000 is a quality management system applies to all types of organisations. It does not matter what size they are or what they do. It can help both product and service oriented organisations achieve standards of quality that are recognised and respected throughout the world.

international quality standards and guidelines, ISO 9000 has earned a global reputation as the basis for establishing quality management. It is used as a mechanism to prevent low quality service (from the point of view of stakeholders and students) and to encourage good quality service. Consultation and training contribute importantly to strategies for implementing ISO standards. In addition, OPEC can assist private schools by introducing pilot projects with high-performing private schools, providing academic and financial support for reaching the ISO standards.

Chotinuchit's (2003) case study of GFCA-HQ suggests that leadership commitment and effective management play the key role in supporting learning cultures and environment within a firm. Referring to e-learning this study finds a correlation between the company environment and employee readiness. This is supported by a learning management system (LMS), content management system (CMS), skill and competency management (SCM), collaboration system and a testing and assessment system.

Is WPL in Thailand sustainable and comprehensive?

Despite incentives for and attempts by companies to provide training for their staff, WPL in Thailand is currently considered non-sustainable. Entrepreneurs find training and re-training, yielding poor rates of return or even a waste of investment. This is particularly the case for formal training courses. However, since the introduction of policy measures to extend tax deduction for the cost of training up to twice the level of its cost to the employer (as noted earlier) and the implementation of compulsory measures related to employee training, company participation levels are rising.

One of the problems with respect to sustainability is the risk of losing trained staff to companies offering higher salaries (for the textile and garment industries see: Wongboonsin et al, 2006a; Wongboonsin et al., 2004; for the automotive industry see Wongboonsin et al., 2006b). Siam Human Resource Management identifies a range of factors that explain the non-sustainability of workplace learning in Thailand. Firstly, workplaces are inclined to recruit a large number of workers into a training programme in order to decrease the costs of training. This is particularly the case for skill-upgrading programmes that rely on external trainers. But it is well-known in professional training circles that this is a waste of time and money: training programmes require clear objectives and target groups, and each training course should serve a maximum of 25 participants. Furthermore, effective training programmes require

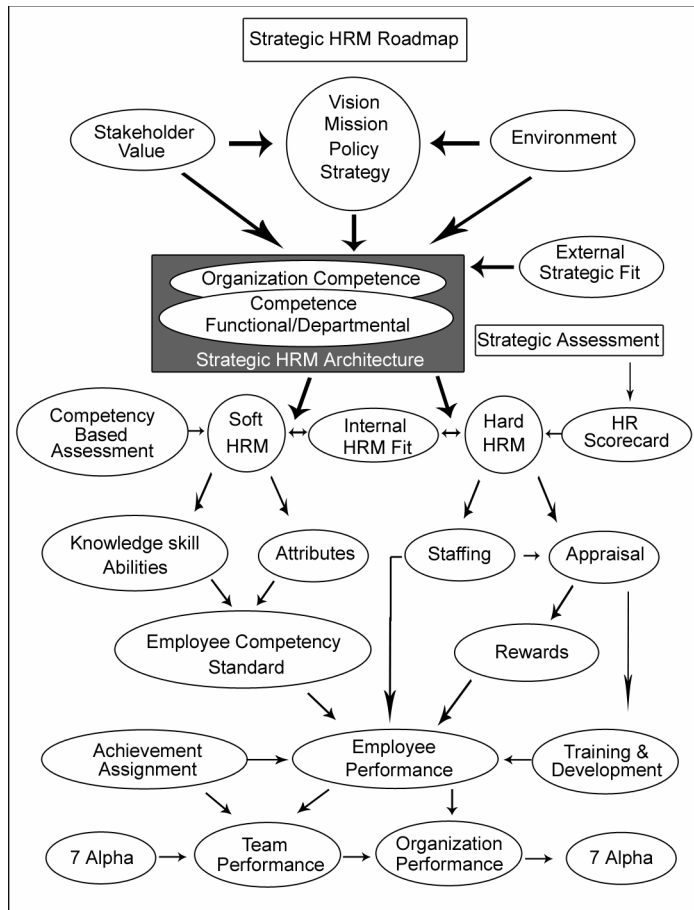
- appropriately qualified and experienced trainers;
- background information about training needs and problems;
- long-term planning horizons which are not dependent on short-term budgets;
- continuous and not one-off or crisis-related training processes;

- tailor-made dedicated programmes rather than imitations of competitors' programmes;
- assessment of learning outcomes that do not rely solely on written examination;
- comprehensive training strategies that include all levels of company staff in all departments so that all can move forward together in a coordinated manner;
- holistic training strategies that bind technical, reflective and perceptive skills together.

Thai business also faces a cultural dilemma in tackling human resources development, in that traditional norms informing teaching and learning relations may hinder the sustainability of workplace learning. Siengthai and Bechter (op. cit.) point out that the hierarchical *nakrian-ajarn* (student-teacher) relationship turns trainees into passive recipients of knowledge. To question the *ajarn*, or in this case the supervisor or trainer, may be considered impolite or inappropriate. Such cultural norms can influence organisational culture and are said to hinder a constructive dialogue between the trainer or the supervisor and the trainee. The hierarchical relationship between employer and employees in a business organisation, however, is also explained by an unorganised workforce, weak trade unions and a dominant employer authority. This is particularly the case in large firms and family-businesses in Thailand (Siengthai, 1993; Suehiro and Wailerssak, 2004).

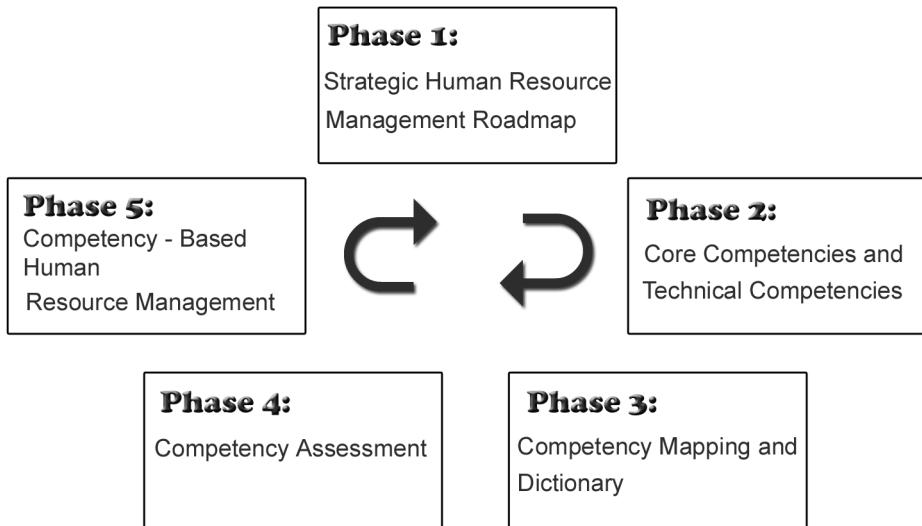
In addition, the role and competences of human resource managers, together with the only partial reach of WPL in terms of scope and target, influence sustainability. Nontakaew (2003) carried out a case study in the Eastern Industrial Estate covering the metal, chemical, and electronic sectors. Although the competences of the HR managers working in these companies had been assessed at high levels, it transpired that their communication, coordination, teamwork, leadership and business skills and competences did require improvement,

Siseompok's (2005) strategic roadmap for human resource management at the workplace proposes appropriate information input in terms of the value of stakeholders and the organisational environment in the vision, mission, policy and strategy of an establishment. Furthermore, 'soft' and 'hard' human resource management are both key features of successful company management. Soft human resource management covers developing employee knowledge, skills and attitudes, relating aims and outcomes to defined competency standards. Hard human resource management covers staffing policies and practices, including appraisal and incentive systems. Together with setting achievement goals and participating in training, these factors all influence employee performance, as depicted visually in Figure 1 (overleaf).

Figure 1: Factors that influence employee performance

Source: Siseompok (2005)

Siseompok (op. cit.) views the strategic human resource management roadmap as the first and basic phase of a competence development process at the workplace. Four further phases follow, as shown in Figure 2 (next page): the identification of core and technical competences; competence mapping and development of a competence dictionary; a competence assessment or a gap analysis; and a competence-based human resource management

Figure 2: Phases of competence development at the workplace

Source: Siseompok (2005)

Siseompok's model can be adapted as a smaller-scale pilot initiative or applied to the whole organisation. In the latter case, its use contributes to a one-standard-for-all approach, covering all operative units and staffing levels. This may, of course, prove difficult to get going at the outset, and risks during implementation can be high. The organisation-wide approach is also relatively costly with respect to human, financial, and time resources. On the other hand, the pilot approach, while being less difficult to start and needing less resources, may lead to a double standard within an organisation. Hybrid approaches are worth considering here.

Putting workplace learning into practice: case-studies

In the first instance, recognition of the benefits of WPL is dependent on its acceptance in principle by all concerned. Management and employees first need to be able to make the link between competence and competitiveness that derives from higher productivity, lower production and operating costs and hence solid profit margins. We offer a number of Thai case-studies to illustrate motives for and outcomes of introducing workplace-based training, collated by Rojvithee (1999, 2005, 2006).

Tem-Chareoensuk Steel Koplring's 230 employees produce steel sockets. To raise productivity, the owner of the company decided in the mid-1990s to introduce training

in job-relevant skills and work practices, and to deliver a set of commitments to employees:

- continuous training provision for all staff;
- establishment of an elected Workers' Committee to deal with welfare issues and to facilitate communication between employer and employees following the decision of the latter not to join the Steel Trade Union;
- administrative restructuring, above all with respect to personnel development to achieve better matching between persons and jobs in the company, combined with closer linkages between salary and skill levels;
- establishment of a company-financed centre for non-formal education at the workplace, with a view to providing learning opportunities for employees with only primary education; the centre is also open to local inhabitants.

The benefits of these measures became evident in the 1997/8 economic crisis: this company could maintain its market position and did not lay off staff, whereas the Workers Committee engaged actively to help minimise operational costs (for example, electricity use) and maximise productivity and quality of service.

The Somboon Group Company produces automotive spare parts; it has 749 employees. The 1997/8 economic crisis caused sales to fall by half, which led to devising a company survival plan comprising:

- structural downsizing from 15 satellites to 5 core branches together with internal changes to generate a smaller and more flexible organisational structure;
- establishing a human resources development section to set the conditions for higher productivity through a transparent division of roles and responsibilities, and career development plans with regular appraisal and individual assessment of training needs;
- DSD licensing for National Skills Standards testing, which means that the company has direct information on its employees' competency profiles; this can be used to develop appropriate salary structures, to deploy staff effectively and to encourage appropriate further training;
- providing training for mid-level factory floor workers to develop their management skills and for upgrading workers' basic knowledge and skill levels;
- establishing an elected Recreational Committee, which acts as a two-way communication and information channel between employer and employees, including joint consultation mechanisms.

As a result of these measures and despite a smaller workforce, productivity rose and operational costs fell (for example, injury compensation claims alone fell by four-fifths

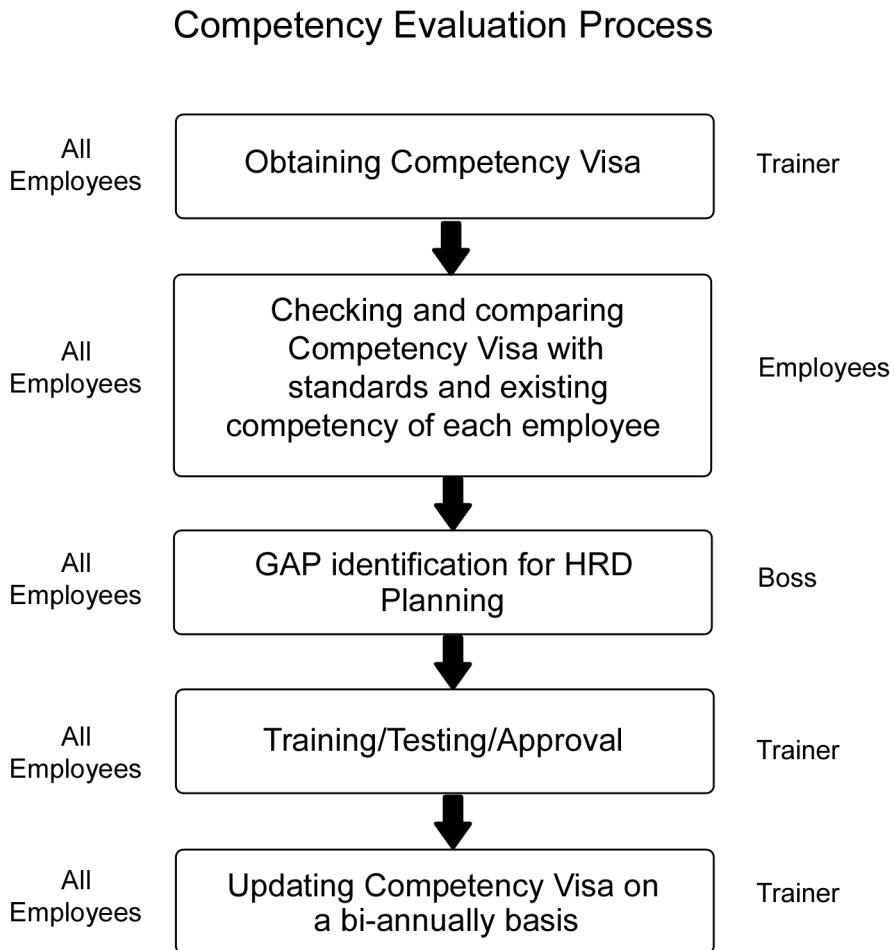
between 1997 and 1998). In 1998 the company was nominated for award by the Thailand Productivity Institute; it also conforms to international working standards as defined by ISO 9000, 9002²⁴ and ISO 14000²⁵ and it cooperates with the Thai Environmental Institute to develop clean technology.

Somboon employees receive fair salaries, benefit from training and can make career progress in the company; the quality of labour relations is good. Somboon has also adopted the Thai Competency Visa for recognising employee competence; the process at the company is depicted in Figure 3 (overleaf). The Visa covers a range of competences. Core competences include personal commitment, adaptability, social and communication skills, leadership and occupational capacities. Functional competences cover analysis, problem-solving and IT skills. The assessment process records the individual skills gap to be bridged by training and the Visa charts express training outcomes in terms of improved competence. The Competency Visa booklet can of course, be regularly updated.

Driessen Aircraft Interior Systems is a multi national company operating in Thailand since 1993; located in Lamphun province, it employs 700 staff and produces high quality aircraft catering equipment. This labour-intensive production requires qualified engineering and technical staff together with administration and sales professionals. Employees need excellent language and communication skills: the company working language is English and staff must be able to interact with customers across the globe. Yet staff turnover rates are high (14% p.a.); this is a cost factor. Good occupational safety and health standards together with quality training provision are part of the answer. The recipient of several Thai and Dutch quality awards, the company has set up a DSD-approved in-house Training Centre, which offers training in technical, language and communication skills, team working and leadership. Company policy maintains its Dutch parent company's philosophy of fostering employees capable of self-direction on the basis of continuous training and company support; this is time-consuming, and it also demands that employees themselves understand the philosophy.

²⁴ ISO9002 is a quality assurance model made up of quality system requirements. This model applies to organisations that produce, install, and service products.

²⁵ ISO14000 is a comprehensive set of standards for environmental management. ISO 9000, 9002, and 14000 specify exactly on the standard of management, production process and the clean/safe and healthy environment for the reputation of the company to be accepted by the international customers and facilitate the global trading.

Figure 3: Competency Visa Evaluation Process at the Somboon Group

Finally, the *Bangkok Dermatology Center* is Thailand's leading medical spa, offering high standard treatments and services. It also offers a two-year practical training course in basic therapy techniques and the use of advanced medical technology for young people from disadvantaged backgrounds but with an upper secondary level education diploma. The company sets the curriculum and employs the instructors. The trainees receive a salary and social welfare benefits during the course; on completion of their training, they are employed as assistant therapists. Trainees are also encouraged to take up Thai Open University courses leading to a higher

education degree. In 2005 the company received the Trade Union Club's premier award for its work.

Conclusion

Workplace learning is an emerging, but not yet pervasive, trend in Thailand. There are examples of good practice, as we have shown above, and these should be disseminated to encourage the introduction of WPL more widely in Thai companies. Overall, this literature review identifies a list of issues in the field of human resource development, especially in relation to WPL, that call for serious research-based inquiry:

- the promotion of knowledge, skills and positive attitudes towards organisational development for senior and medium level executives;
- development of leadership competences for all executives;
- the benefits of comprehensive training needs assessment;
- monitoring and evaluation of WPL on a continuous basis, in order to chart the relationship between training and performance;
- informal mentoring activity and distinctive effects of incidental learning together with deliberate informal learning to stimulate change.

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Competence development as workplace learning in the Czech Republic

Milan Pol, Petr Novotný, Lucie Chaloupková and Zuzana Šimberová

Introduction

This contribution provides a comprehensive review of the situation in the Czech Republic with respect to human resource development with particular reference to workplace learning. The text is divided into four main sections. The first section (written by Petr Novotný) introduces the broad context for discussing this topic by looking at the general situation in human resource development in the Czech Republic in the context of the difficult process of establishing new systems of adult education and adult learning following political and economic change after 1989. It also outlines new perspectives for the future, which are significantly influenced by European educational policies.

The second part (prepared by all four authors) is an analysis of the discourse on workplace learning as this has developed in the Czech Republic, based on an analysis of contributions to educational science journals; since there are virtually no monographs on the subject. It concludes that discussion remains largely at the conceptual level and there is but slow progress in making use of the concept of workplace learning, reflecting the lack of research in this field.

The third section (written by Lucie Chaloupková) looks at an exception to the general picture: contrary to companies and enterprises, educational organisations, and particularly those in teacher education, are putting the idea of workplace learning into practice. Finally, the fourth section (written by Zuzana Šimberová) outlines the specificities of Czech interpretations of the concept of key competences in policy discourse, which continues to reflect the traditional strength of the concept of skills. Competence models are becoming increasingly widespread, but they have not yet ousted skills models and this can lead to discursive confusion.

Human resource development

The Czech Republic belongs to the advanced economies and its prosperity is, therefore, increasingly based on the quality of its human resources, that is, on the abilities, knowledge, skills and attitudes of people rather than on raw materials and industrial production processes. Human resources are not, however, a static category. The term knowledge society represents a compression of highly complex and interrelated phenomena and processes ranging from pure technological development to cultural globalisation, but taken together, these features generate a

context in which continuous development and renewal of human resources are of utmost importance. Whilst education is not to be regarded as the only and all-encompassing path to a balanced development of society, the basic approach to human resources development naturally relies on education and learning, as reflected in the concept and practice of lifelong learning.

Key concepts of the discourse: lifelong learning and human resource development

Sharply rising and widespread interest in lifelong learning became evident in a series of key 1990s policy documents at international level, notably the European Commission's White Paper *Teaching and learning: towards the learning society*, UNESCO's *Learning: the treasure within* (the 'Delors report') and OECD's *Lifelong learning for all* report, all of which were published in 1996, the European Year of Lifelong Learning. By the end of the 1990s, lifelong learning had become a key axis of education and training policies at national levels, too, including in the Czech Republic (see: Association for Education Policy, 1999; National Training Fund, 1999b). Subsequent strategic documents such as the *National Programme of Educational Development* (Ministry of Education Youth and Sports, 2001) and reports on human resources in the Czech Republic (National Training Fund, 2003a) have placed considerable emphasis on motivation for learning; and this coincided with the publication of two major policy documents, the European Commission's *Memorandum on Lifelong Learning* (National Training Fund, 2000) and its subsequent *Communication on Lifelong Learning* (European Commission, 2001). There has also been considerable discussion of the formal education system, for example in the *National Development Plan of the Czech Republic 2007-2013 Proposal* (2006), together with the publication of employment action plans and independent analyses such as *Travelling in the Czech Future* (Potůček, 2003).

Economic and social trends underlie the kinds of statements made about desirable trends of development in lifelong learning: "In the 1990s, lifelong learning was a response to, or even a protection from the changing, terrifying and unknown technological, economic and political environment – and has become just as precarious and ambiguous as the environment it exists in" (Hodgson, 2000, taken up in Dehmelová, 2005: 12). Writing in this field generally addresses diverse aspects of contemporary change, depending on the particular standpoint of the commentator (globalisation, knowledge, technology ...). In this contribution, we focus on characteristics relevant to the occupational and professional domain, such as the issue of knowledge as a key factor of production (see: Potůček, 2003), which may raise questions in some circles – production can have connotations with the past rather than with the future. However, an economic wave that prioritises not only information and knowledge but also ecology and safety is generating changes that require a transformation of employee training, implying the growing importance of human resources compared with material and financial resources. Unless employees

engage in lifelong learning, sustainable human resource development is impossible; and simultaneously, learning in working contexts is an important component of and a stimulus for lifelong learning. Documents developing the topic of human resources (whether on national or company level) accept the concept of lifelong learning with very little reservation, but, of course, they accentuate specific aspects of the concept and its practical purposes.

The contemporary interpretation of human resource development involves a focus on three basic issues at both the individual and organisation levels: learning, performance and change (Young, 2004). In this sense, human resource development is conceptually broader than both education and learning because it also encompasses economic and managerial dimensions. Furthermore, whilst the concept of human resource development clearly significantly implicates the individual level, it is the organisational level that is crucial.

In common with the concept of lifelong learning, the contemporary concept of human resources incorporates broader social aspects as defined by the development of the social context. These issues are reflected in the emphasis placed on equality of opportunities (covered by legislation in most advanced countries) and on supporting social inclusion – often motivated by the concern about new inequalities in knowledge societies (Dolan and Schuler, 1994). Such issues are becoming an integral dimension of human resource development.

Legal aspects of the situation in the Czech Republic

In the first half of the 1990s the Ministry of Education, Youth and Sports of the Czech Republic (MEYS) made considerable efforts to set up a legal framework that would formally define the adult learning sector, but this met with no success due to the reluctance of employers and other relevant Ministries and has resulted in a persistent and substantial legislative vacuum. MEYS repeatedly signalled that adult education and training would be addressed once issues of initial education and training had been resolved (see: OECD, 2001: 13), but complications have arisen due to the lack of clarity on the division of ministerial responsibilities in this area. MEYS views adult learning (general and vocational) at both national and regional levels to fall under the aegis of education system development objectives, whereas the Ministry of Labour and Social Affairs (MLSA) regards it as an integral part of its national and regional strategies of HR development.

Paradoxically, the first law addressing adult education at a general level was the 1988 Higher Education Act, which authorised higher education institutions to offer fee-paid lifelong learning (that is, adult education) courses. One of the motivations for this measure lay in the internationally comparatively poor rates of Czech higher education participation rates (as summarised, for example, in Centre for Environmental Questions, 2003: 38-39).

For its part, the 2004 Educational Act establishes the possibility for upper secondary schools and higher vocational schools to provide courses leading to recognised qualifications, including distance, evening, and part-time studies, with the aim of improving access to secondary level education. These legal provisions also give scope to secondary level education and training institutions to offer individuals the chance to sit particular examinations and to follow post-secondary vocational and specialist courses together with accredited re-qualification courses.

In April 2005, the Czech government adopted MEYS plans for legislative reform in the further education sector. These embrace contemporary trends by reflecting the need for horizontal and vertical integration of formal and non-formal education and informal learning. The plan is based on the idea that "it is desirable to offer users of further education possibilities to:

- use qualifications achieved outside the educational system in a transparent and objective way;
- propose an objective way of verifying qualifications achieved outside the educational system;
- provide participants of further education with conditions ensuring them better opportunities in the labour market;
- offer employers better information on the real significance of the certificates acquired;
- facilitate information and advice in the provision of courses for participants and providers of further education;
- ensure that the burden on the state budget remains within limits" (Ministry, 2005: 1).

These efforts have resulted in the successful putting through of the Law on Verification and Recognition of Completed Continuing Education (No. 179/2006 Coll.), a basic legal document as far as certification of completed training is concerned.

The National Development Plan of the Czech Republic takes the explicit view that this legislation is an important step in the development of adult education and training. Currently, a new National Qualification System and a National Occupation System are being drafted, thus constituting important measures to be implemented under the National Development Plan.

Institutional basis and attitude of companies

New kinds of demand for adult professional training after 1989 were met, in the first instance, by an education market rather than by public education services, and this accounts for the current pattern of institutional provision. Pre-1989, the Czech Republic was characterised by a traditionally strong system of in-company training, which was understood to be an important component of the operation of what was then termed the national state economy. With economic restructuring, this system virtually collapsed. Those who had been responsible for providing in-company training established new education and training institutions, thus driving the spontaneous development of a new institutional basis for adult learning. In particular, at the early stages, this education market was governed by supply rather than demand, but its non-formal institutional base has proved surprisingly flexible in terms of response to the needs of a transformation society. It was able to meet the fast-growing demand for specific experts such as accountants and for raising foreign language competence on a broad scale. Today, estimates suggest that there are some 3 000 institutions, agencies and companies providing education, training and related counselling services. Some of these organisations are accredited by the MEYS, but others are not formally accredited and do not necessarily seek such accreditation – some segments of the education market simply have no need for it.

As a result, the traditional Czech picture has been reversed: Research in this field found that three-fifths of companies prefer to use external education and training providers for their employees, whereas only 30% provide in-company training (National Training Fund, 2003a); 80% of Czech companies co-operate with a private sector education and training provider (National Training Fund, 2003b). However, another feature of this situation is that most of these institutions, agencies and companies are very small and offer a limited range of services – 45% offer at most 5 courses (National Training Fund, 2003a: 102). Such small-scale operations cannot, of course, easily provide support services such as educational needs identification and analysis, information and counselling, or accreditation procedures.

Data on adult education and training in the Czech Republic

As shown in Table 1 (overleaf), some 116 000 persons currently participate in distance, evening, and part-time studies, that is, upper secondary and higher education and training leading to a specific level and type of qualification pursued in institutions that are part of the country's education system. As Human Resources in the Czech Republic (National Training Fund, 2003a) points out, some formal education and training is organised in the workplace itself: 9% of vocational school instruction and 11% of other secondary school instruction together with 3% of teaching on B.A. and 5% on M.A. courses.

Table 1: Participation of students in distance, evening, and part-time studies, 2005-06, Czech Republic

Type of institution	Number of students
Public higher education institutions	58 585
Private higher education institutions	17 122
Higher vocational schools	4 911
Secondary technical schools	17 193
Secondary vocational schools	17 538
Grammar schools	847
Total	116 196

Source: Statistical Yearbook of the Czech Republic, 2006

Far more adults, however, participate in non-formal education. If the whole of non-formal education of economically active adults in the Czech Republic is to be covered, providing some figures characterising this domain seems necessary – and the results of empirical research available in the Czech Republic will be used to this end. Analysis (National Training Fund, 1999a: 40) reporting the outcomes of a 1996 survey undertaken in the framework of the Cranfield Project on European Human Resource Management indicates that 23% of Czech company employees took part in continuing education and training annually. Subsequent surveys (AMD in 1996, Czech Confederation of Industry in 1998, the European CVET surveys) return comparable results, reaching approximately 30% participation rates (*ibid.*: 41).

However, Czech Bureau of Statistics analyses suggest that these figures cannot be used to project estimates in relation to human resources in the Czech Republic. The company-based surveys in question only include employees, which automatically excludes other economically active groups (the self-employed, students working alongside their studies, etc.). Household surveys return lower participation rates in non-formal education – a recent Czech Bureau of Statistics study reports 16.4% for economically active adults over the space of a year (Czech Statistical Office, 2004).

In the Czech Republic, as elsewhere, adult learning participation rates vary significantly by education level and occupation. Analysis (Czech Statistical Office, *ibid.*) reports an overall range of between 6% and 29%; by industrial sector, the range extends from 6% for employees in the hotel and catering industry to 36% in manufacturing. Research (National Training Fund, 2004: 83) is able to show that the proportion of companies providing training for their employees ranges between 46% and 90% according to the sector at hand. The higher the occupational position (which is associated with individuals' educational level, of course), the greater the extent of participation: the National Training Fund (1999a: 40) reports an average of

eight days per annum for managers, seven for engineers, five for office staff and three for blue-collar workers.

Eurostat (2005) Labour Force Survey data show that at 5.9% (in the four weeks prior to the survey) Czech adult education and training participation rates are well below the EU25 average of 11%. Šeďová and Novotný (2006) also record relatively low motivation amongst Czech adults to engage in education and training. An ongoing study of adult learning throughout the life-course²⁶ confirms low participation rates among economically active adults in the Czech Republic, as shown in Table 2 (below). Participation rates are by far highest for CVET (continuing vocational education and training) and lowest for foreign languages and personal development, that is, for classic general adult education provision. This pattern holds for education and training required by one's employer, although interestingly, employers seldom appear to require employees to take foreign language courses.

Table 2: Participation in non-formal education in the preceding year by economically active adults, %, 2005

Non-formal education	Participation rates by type of activity	Within that: Participation required by employers: distribution by type of activity
Continuing vocational education and training (CVET)	28.8	36.9
Foreign languages	9.9	3.1
Computer skills	11.1	21.9
Personal development	8.3	17.4

Note: Respondents were asked whether they had participated in any educational activity relating to the categories shown in the table in the twelve months preceding the survey.

Source: Adult learning throughout the life-course, see footnote 26.

Table 3 (overleaf) indicates that the same survey respondents are only slightly more likely to say that they intend to participate in education and training in the year to come; this question was posed immediately following the question on their participation in the preceding year.

²⁶ Adult education in various stages of the life cycle: priorities, opportunities and possibilities of development. Research conducted by Milada Rabušicová at the University of Masaryk, Department of Educational Sciences, funded by the Ministry of Labour and Social Affairs, Project grant 1J 017/04.

Table 3: Intention to participate in non-formal education in the coming year by Czech economically active adults, %, 2005

Non-formal education	Participation rates by type of activity	Within that: Participation required by employers: distribution by type of activity
Continuing vocational education and training (CVET)	25.2	32.8
Foreign languages	16.7	2.7
Computer skills	13.6	11.7
Personal development	8.9	12.0

Source: Adult learning throughout the life-course, see footnote 26.

The main differences between past participation and future intention are, firstly, that economically active adults are more disposed to plan to learn foreign languages (16.7%), but they do not expect their employer to require this kind of education and training (2.7% of them say that the reason for planning to learn foreign languages is the employer's expectation). Secondly, they expect their employers to be less likely to *require* their participation – whatever the activity category – than had actually been the case in the preceding, year or they are underestimating future employers' requirements. However, for both past and future participation, it is CVET that dominates the type of adult learning participation, certainly with respect to the economically active. In other words, those active in the labour market participate in relation to their professional and occupational context, but equally, the level of employer requirement to undertake education and training remains quite low. The available data suggest, then, that awareness of the need for continuous learning in adult life is not as well developed in the Czech Republic as it might be.

Table 4 (next page), however, shows that in this ongoing study, an overwhelming majority of economically active respondents believe their knowledge and skills to be adequate or rather adequate. It allows us to infer that as far as occupational and professional education and training are concerned, there can be no inherent assumption of presence of a conscious need to learn.

In general, Czech adults are not inclined to link participation in education and training with the potential for occupational/career change and development. Table 5 (next page) rather suggests that they do not see such investment as bringing such benefits: over two-thirds of the survey respondents think that participation in education and training is at least not very likely to bring the potential for occupation/career change or development.

Table 4: Self-evaluation of knowledge and skills needed in one's job, N and %, 2005

Knowledge and skills are adequate for my job	N respondents	% response
yes, definitely	366	42.9
rather yes	441	51.9
rather no	38	4.1
definitely not	10	1.1
respondents – total	855	100.0

Note: Respondents were asked whether they see their professional knowledge and skills as adequate and sufficient for their present work under current circumstances.

Source: Adult learning throughout the life-course, see footnote 26.

Overall, we can conclude that under such circumstances, the motors for at least extrinsic motivation to participate in adult learning turn slowly in the Czech Republic. Much provision is market-provided and employers are likely to prefer company-external education and training providers, but only a minority provides in-company training and many employers do not encourage or require their employees to engage in C(V)ET. Economically active adults, for their part, are likely to regard their knowledge and skills as more or less sufficient for their current work, and are unlikely to see education and training participation as delivering benefits in terms of expanding their occupation and career opportunities.

Table 5: Self-evaluation of the potential for occupational/career change due to participation in education and training, N and %, 2005

Possibility of occupational change	N respondents	% response
yes, definitely	106	13.0
rather yes	139	17.3
rather no	310	38.6
definitely not	249	31.1
Total response	804	100.0

Note: Respondents were asked whether they think their work position would change if they were to improve their education.

Source: Adult learning throughout the life-course, see footnote 26.

Informal learning is a difficult category to pin down in empirical terms. Analysis (National Training Fund, 2003a) of self-directed learning/self-education amongst

economically active Czech adults finds that this accounts for almost two-thirds of those learning activities that cannot be subsumed within formal education and training activities. However, these 'self-education' activities undoubtedly cover both non-formal and informal learning, and it is very difficult to find systematic information about mentoring/tutoring, on-the-job learning and reflective practice activities, which are relevant for occupational education and certainly for the issue of workplace learning, to which we now turn specifically.

Workplace learning: a review of current Czech education and managerial literature

This discussion draws on a total of 78 texts that have been identified as relevant for the topic of workplace learning, but very little of this literature provides solid *empirical* evidence. Rather, the literature contains programmatic or prescriptive accounts of the arguments in favour of developing workplace learning as an alternative to or an enhancement for the current majority pattern of preference for company-external education and training provision.

In policy terms, workplace learning has not been a priority topic for major Czech institutions working in the fields of lifelong learning and human resource development (National Training Fund, National Institute of Technical and Vocational Education, Institute for Information on Education). Nor has it been dealt with in any detail in any important study or conceptual document, including both versions of the Strategy of Human Resource Development for the Czech Republic (1999, 2003). Furthermore, employee development is only rarely defined in terms of competence development; it is more often referred to under the label of education/training, whether formal or non-formal.

It is recognised that programmatic statements require support through providing examples of good practice and systematic research evidence, but the latter, in particular, remains scarce. Examples of good practice also tend to refer to company 'success stories' in promoting individual employee development rather than furnishing systematically documented case studies. Typically, the material that is available relies on expert interviews with human resources managers (personnel officers and other managerial staff dealing with education/training and employee development as part of their job) or with employees of those companies who do provide C(V)ET opportunities. The information yielded through these channels focuses on company policy on workforce development and the ways in which a company organises its education and training activities. This means that much relevant information is missing, not least, for example, the extent and nature of the resources invested in education and training by companies. These features limit the potential for interpretation and evaluation of the material at hand.

Furthermore, the available material relates almost exclusively to the private sector, and, within this, to large companies, including foreign-owned multinationals. This means that our information draws heavily on enterprises that (a) are in a better position to invest in education and training and (b) bring human resources policies and models developed elsewhere into the Czech context. The Czech public sector, like the private sector, also places its emphasis on education and training away from the workplace itself, whether provided in-house or by external providers (National Training Fund, 2003c). The most frequent topics addressed in the available literature are forms and methods of learning and the roles associated with these, as shown in Figure 1 below, together with analyses of specific elements.

Figure 1: Comprehensive overview of the content of articles

Main area of interest	Keywords
Methods and forms of learning	Coaching, mentoring, supervision, task rotation, on-the-job training, field assistance, workshop, playback theatre, inquisitive behaviour, counselling, presentation, chairing, managerial games, action planning, action learning
Leader role in learning	Coach, tutor, mentor, supervisor, lecturer, coordinator, chair, internal lecturer, instructor, senior – company expert, psychologist, therapist
Personal management	Adaptation to working environment, adaptation to work activities, adaptation to work performance, personal development, company, fringe benefits, development centre, career
Individual needs	Educational needs, training needs, needs analysis, personal development plan
Electronic support to learning	e-learning, blended-learning, ICT, telematics, virtual classes, expert systems
Change and work innovation	Learning organisation, innovation, innovation strategies, learning as a tool of change, transformation environment, flexibility
Competence development	Individual growth, autonomy, management competence, professional competence, social competence, teamwork

Some of the most popular topics in the literature include coaching (see Box 1, next page); human resource managers' work in relation to individual employees' workplace learning; e-Learning; and the link between workplace learning and organisational innovation and flexibility (see Box 2, next page).

Box 1: Coaching

Coaching is the learning support method most frequently mentioned in the literature; we find many accounts of both one-to-one and team coaching. The journal *Moderní řízení (Modern Management)* publishes a series of 12 articles on systemic coaching between May 2003 and April 2004 (introduction to systemic coaching, texts on the basic tools, manipulation, the manager as a coach, problems in coaching, self-reflection, typology of questions asked by the coach and, finally, a summary of why and how to coach.

Box 2: Workplace learning and organisational development

One example of a productive link between workplace learning and organisation innovation and flexibility is given in an interview with the general manager of a successful company (nominated as 2003 Entrepreneur of the Year). The manager presents a company project called Academy of Productivity and Innovation, whose fundamental principle is the implementation of projects developed in response to training in "company laboratories". The project aims to generate profit through enhancing company productivity.

Our analysis of the literature also shows that areas of competence receive different amounts of attention, as shown in Table 6 (next page). Social competences attract by far the most consideration, followed by the competence to master new production processes and technologies. Managerial competence also appears to be attracting a rising amount of attention.

An overwhelming majority of texts that refer to workplace learning concern themselves with implementation methods and the management of learning processes, generally within the framework of company policies and the ways in which employees are implicated in their implementation. Evidence of incentives, as for example making learning one of the requirements for career advancement or a system of fringe benefits, is much scarcer. It is particularly striking that virtually no evidence of evaluation, testing or certification of the results of workplace learning is available in the literature. In our view, however, making workplace learning a Czech reality – as opposed to a conceptual or programmatic statement – demands an integrated debate on all three key aspects of the topic, that is, on learning management, learning motivation and learning evaluation.

Table 6: Areas of competence treated in articles

Area of competence	Number of articles in which this area receives attention
Social competences	35
Mastery of new processes and technologies	24
Entrepreneurship	15
Information and communication technologies	10
Languages	8
Other	18
of these, managerial competence	8

We can thus see that workplace learning has been relatively successful in finding its place in Czech schools, both as a theoretical concept and in practice. Schools provide evidence that the situation in workplace learning differs from one type of organisation to another. Assessing the general situation in workplace learning in the Czech Republic is thus rather difficult.

Czech schools as workplace learning settings

Workplace learning does not receive continuous and systematic attention in the Czech Republic, but there are some emergent exceptions to this general observation in human resource-oriented fields, which employ specific methods such as supervised work and self-reflection to a significant extent. Such methods are most widely used in teacher education.

Insisting on high quality human resources in the Czech education system has a longstanding tradition, reflecting the value placed on providing high quality school education for all children and young people. In terms of the qualifications and skills of schoolteachers, this has conventionally translated into provision of high quality initial teacher education.

Hence, the Czech Republic has a relatively good network of teacher training institutions. Nine universities offer degrees in Education and/or teaching: West-Bohemian University, Pilsen; Palacký University, Olomouc; Jan Amos Komenský Higher School, Prague; Charles University, Prague; University of Hradec Králové; Technological University, Liberec; Ostrava University, Ostrava; Masaryk University, Brno; South-Bohemian University, České Budějovice. In addition, other institutions produce a rich supply of human resources for staffing the education sector. There are 20 secondary technical schools offering a programme in pre-school and out-of-school education, one offering a social work and social pedagogy study programme,

one pedagogical high school offering a programme in educational and humanitarian activities, and finally, a pedagogical lyceum. Pre-school and out-of-school education can be studied at 3 higher vocational schools and social pedagogy at 7 higher vocational schools.

The need for continuous development and renewal of the knowledge and skills acquired in initial education and training enjoys broad acceptance in the Czech Republic, that is, the case for lifelong learning is well-established, it is associated with the concept of key competences (see the last section of this contribution) and, more broadly, with the aim of strengthening national competitiveness through developing the quality of human resources.

In turn, this places new demands on the structuring and the principles of teacher education: systems of provision, course content and the development of continuing professional education for practising schoolteachers are all on the current agenda for reform. In our literature review, issues relevant for workplace learning emerge in both initial and continuing teacher education and training contexts.

In the case of initial teacher education, the literature displays a particular preoccupation with self-reflection, self-concept, the teaching profession as an occupational culture, teaching internships, teacher education and class auditing. Within this list, self-reflection is the most frequently discussed topic: it is addressed in the context both of improving one's own teaching and of improving the outcomes of long-term teaching internship (Klupal, 1997; Filová, 1997; Švec, 1997, 1998; Nezvalová, 2002). Both Píšová (2001) and – for the Slovak Republic – Kasáčová (2005) consider how to implement self-reflection strategies effectively by applying appropriate methods. Other studies (Solfronk, 1996; Švecová et al., 2003; Vašutová, 1997) focus on the contribution of teaching internship to the quality of future professional practice, attempting to identify the optimal stage at which teaching internship takes place, the optimal duration for teaching internship, and optimal approaches to supervision of trainee teachers whilst undertaking their teaching practice.

The Czech Republic does not yet provide systematic in-service teacher education and training on a broad front. A *National Institute for In-service Teacher Education* exists, complemented by a range of unincorporated associations and higher education institutes. However, this provision is not yet accompanied by integrated systems of qualification, accreditation and quality assurance. Furthermore, little focused empirical research is available to date. Several longitudinal studies in this general field have recently been published (Kohnová, 2004; Spilková, 2002; Vašutová, 2000; Walterová, 2001), but none have addressed workplace learning explicitly. Lazarová (2001, 2006) does give considerable attention to teacher development by means of reflection of one's own work, that is, through becoming a reflective practitioner. Situated in the theoretical tradition of constructivism, these

analyses do not present much empirical data in support of their argument, and, therefore, are also best described as programmatic in nature.

We can thus see that workplace learning has been relatively successful in finding its place in Czech schools, both as a theoretical concept and in practice. Schools provide evidence that the situation in workplace learning differs from one organisation to another. Assessing the general situation in workplace learning in the Czech Republic is, therefore rather difficult.

Key Competences

The term 'competencies' is a new element in the reality and reflection of issues associated with vocational education and training. Until recently, the term had hardly been part of the Czech educationalist and andragogical vocabulary. The situation partly persists, the term having to compete with the strongly rooted concepts 'skills' and 'abilities'. Integrating the term 'key competencies' into the Czech educationalist vocabulary is even more complicated. Despite this, the term 'key competencies' as one of the pillar stones of the curricular reform of the Czech educational system has been taking the role of a certain axis of general as well as vocational education, and this fact is bound to usher a transformation in continuing vocational education and training in the near future too. This is why we are going to address implementation of key competencies in more detail now.

Although the concept of key competences is a well-established theme in theory and research literature in some European Countries, it is relatively new to Czech discourse, and it arrives at a point of discursive transformation in the literature as a whole, which is in the process of re-examining the term in the light of the demands of knowledge-based societies and economies. This means that Czech writers are actively engaging with the idea of key competences in order to develop a distinctive approach and understanding. We look at this development against the background of the highly influential *European Reference Framework for Key Competences for Lifelong Learning* (European Commission, 2004), indicating where Czech perspectives concur with and depart from this framework.

The term 'key competences' replaces the formerly widely-used term 'basic skills', generally understood to refer to basic literacy, numeracy and to what are known as survival skills or life skills, which are now regarded as too restricted in their scope (European Commission, 2004: 2). On the basis of the extant theory and research literature, European Commission reference documents define competence as "a combination of knowledge, skills and attitudes appropriate to a particular situation" (European Commission, 2005: 3). Similarly, key competences are those that support personal fulfilment and development throughout life (cultural capital), active citizenship and inclusion (social capital) and employability (human capital) and they "represent a transferable, multifunctional package of knowledge, skills and attitudes

that all individuals need for personal fulfilment and development, inclusion and employment. These should have been developed by the end of compulsory schooling or training, and should act as a foundation for further learning as part of lifelong learning” (European Commission, 2004: 3, 6). The eight key competence domains defined in the European reference framework are: first language communicative competence; foreign language communicative competence; mathematical literacy and competence in science and technology; competence in information and communication technologies; learning-to-learn competence, interpersonal, social and civic competences; entrepreneurial competences; cultural competence.

In the Czech literature, only Hučínová (Research Institute of Education, 2006a-g) explicitly sets out these definitions, but those using the terms increasingly employ them in the same kind of way. Until 2004, even publications from the same research study but written by different authors used the terms skill and competence interchangeably (see Šťastnová, 2004 [key skills] and Kalousková, 2004 [key competences]). Since 2004, the term key competences has been increasingly adopted and appears with increasing frequency in the literature, However, generally speaking, Czech discourse focuses on the application of the concept of key competences in compulsory education, on the basis that it is this sector of educational provision and participation which both addresses itself to ‘the basics’ and by definition reaches everyone in the population. This is clearly a restricted use of the concept and its scope of application, but it accounts for the lack of reference in the Czech literature to competence development in relation to workplace learning.

In the initial European expert working group specifications of the term, a key competence “must be necessary and beneficial to any individual and to society as a whole. It must enable an individual to successfully integrate into a number of social networks while remaining independent and personally effective in familiar as well as new and unpredictable settings. Finally, since all settings are subject to change, a key competence must enable people to constantly update their knowledge and skills in order to keep abreast of fresh developments“ (European Commission, 2002; 14). However, what this means in practice in particular national contexts can become very complicated, as in the case of the Czech Republic, where key competence frameworks have been developed and are applied in different ways, as summarised in Figure 2 (next page).

Figure 2: Summary of key competences classification schemes in the Czech Republic

European Reference Framework – Key Competences for LLL	Framework Educational Programme for General Secondary Education	Framework Educational Programme for Secondary Vocational Education	Human Resources in the Czech republic, 1999	National Institute for Technical and Vocational Education					
Communication in the mother tongue	Communication competence	Communication competence	Communicative skills including foreign languages	Oral and writing skills		Adaptability, flexibility			
Communication in the foreign languages				Reading comprehension of instructions					
Digital competence				Foreign language skills					
		Competence in use of ICT and in efficient use of information	Ability to use information technologies and work with information	IT proficiency					
				Information-processing proficiency					
Mathematical competence and basic competences in science and technology		Problem-solving competence	Com- petence in application of basic mathe- matical strategies in dealing with common practical tasks	Com- petence in dealing with everyday work-related and other problems in- dependently	Ability to deal with problems and problem situations	Ability to use mathe- matical strategies in dealing with prob- lems	Use of numbers when dealing with tasks or during work	Problem-solving ability	
Learning-to-learn	Learning com- petence		Personal competence						Per- sonal and inter- person- al skills
							Decision-making ability		
Interpersonal, intercultural and social competences and civic competence	Civic com- petence	Social and personal competences		Social competence			Ability to assume responsibility	Teamwork ability	
Entrepreneurship				Career fulfillment					Leadership ability
Cultural expression									Decision-making ability
			Social competence						

The term key competence is used in the Czech Framework Education Programme for General Secondary Education (2005), which specifies national curricula. Here, key competence domains are connected with specific curriculum content – but based on five, rather than eight, domains: learning competence; problem-solving competence; communication competence; social and personal competence; and civic competence. In this restructured Czech scheme, mathematical literacy, entrepreneurship and cultural competence occupy marginal positions and do not comprise distinctive domains. Further, communicative competence (linguistic and digital) is compressed in the Czech model, whilst it introduces problem-solving competence as a distinct field. Finally, scientific and technological competence does not appear at all.

In addition, national curricula for specific kinds of schooling use varying classification schemes. The framework for vocational secondary education (see Figure 2 above), for example, lists three categories of competence: key competences; civic competences and professional competences. This system, therefore, appears to follow a different logic altogether, and includes seven key competence sub-domains: communication competence; personal competence; social competence; competence in dealing independently with everyday work-related and other problems; competence in the use of information and communication technologies and competence in efficient use of information; competence in the application of basic mathematical strategies for dealing with common practical tasks; competence in career fulfilment. Once more, we can see partial gaps and partial overlaps with respect to the European Reference Framework.

The policy document *Human Resources in the Czech Republic* (1999) was ahead of its time in recognising the importance of key competences as a guiding framework for educational aims and contents, but its list (see Figure 2 above) also contains some distinctive features.

Societies may well differ in the nuances of what are regarded to be essential competences for professional and personal life, and there is little doubt that acquiring, recognising and valuing competence are processes of social and cultural construction. Perhaps the differences in the classification schemes summarised in Figure 2 for the Czech Republic are, in this sense, perfectly authentic. However, it is at least as likely that they are *both* the outcome of the wish to establish local ownership by asserting national specificities *and* an expression of the relative autonomy of different parts of education and training policy-making domains and sectors of provision.

Education and training sectors formulate and express their perspectives somewhat differently, according to the particular interests and aims they serve. This accounts for the divergent denominations of key competences in the Czech framework documents for general and vocational secondary education. Similarly, National Institute of Technical and Vocational Education publications (Šťastnová, 2004;

Kalousková, 2004) call on labour market research in the first instance, so producing a differently accented classification of quite specific competences: oral and writing skills; reading and understanding instructions; foreign language skills; using numbers when dealing with tasks or during work; decision-making ability; problem-solving ability; ability to assume responsibility; adaptability and flexibility; teamwork ability; leadership ability; willingness to learn; IT proficiency; information-processing proficiency (see Figure 2 above).

Interestingly, both cultural competence and entrepreneurship as *such* are missing in all the Czech schemes, although their components can be seen as integrated within other competence categories in the lists. Indeed, some competences do cross-cut domains in principle, as in the case of the European Reference Framework itself: critical thinking; creativity; initiative taking; problem solving; risk assessment; and decision-making (European Commission, 2005: 13). Nevertheless, all the Czech classification schemes are closer to each other in terms of content than they each are to the European Framework; they all display a distinct set of nuances that, on the one hand, situate some elements into broader categories (cultural competence becomes part of social and personal competence) and, on the other hand, break up broad categories into more specific components (entrepreneurship becomes career fulfilment, leadership, teamwork ability and so forth). Finally, all Czech schemes include problem-solving as a distinct category of competence, which is not the case for the European Reference Framework; in reverse, learning to learn is less prominent in the Czech schemes as a whole. Overall, Czech competence categories are narrower and more specific than are those of the European Framework, an observation that ought to prompt some reflection on relations between the more abstract and the more concrete in Czech approaches to understanding and analysing the concept of competence.

Concluding it can be said that the way in which Czech educationalist circles, represented by influential institutions and documents produced by them, are coming to terms with the concept of 'key competencies' can be regarded as evidence of the difficulties encountered in putting through some basic concepts. The concept of 'key competencies' is ousting the traditional concept of 'skills' while taking up some features of that concept at the same time.

Conclusion

Workplace learning is a topic whose importance has hardly been fully understood in the Czech environment, even if the situation has been improving. The Czech environment is characterized by a tendency to develop employees' skills through training provided by external agencies outside their workplace. However, as we have evidenced, the tendency to restore the companies' own systems of training leads to discovering the opportunities provided by workplace learning by many organisations.

In some domains (e.g. in schools) a motivation to develop workplace learning in theory as well as in practice can be observed.

We believe that our study clearly shows that the adoption of some newer concepts – whether these are rather general concepts such as workplace learning or key competencies, or specific processes (coaching, monitoring etc.) – is more than a purely “technical” change. What is changing is the culture of education, which makes the situation even less easy to survey. Interpreting these issues, we must take into consideration the fact that although some topics may be new, the area of adult education and (continuing) vocational education and training has been addressed by advanced systems of work in the field of education which are grounded in theory. This is why the systems being implemented tend to integrate elements of good practice adhered to in the past and there is reason to assume that the adoption of the concept of WPL, too, will take a specific form in the Czech Republic.

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Managerial competencies: a review of recent Chinese research

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Introduction

The rapid development of China's economy in recent decades has led to a sharply rising demand in all sectors for employees who are qualified for and capable of adapting to working conditions in globalising market economies. The demand for competent managerial staff and in the technical professions is particularly strong. Joint venture companies and international consultancy firms have brought this issue to the forefront of attention. This demand is the main reason for Chinese interest in the idea of workplace learning as a route to competence development. Such learning can take the form of on-the-job and off-the-job training, mentoring schemes, work-based vocational certification systems or university degree programmes, including MBAs.

However, this ought not to be the only reason for looking at workplace learning more closely. National Census figures indicate that the Chinese labour force will continue to expand for the next five years or so, reaching 1 billion in 2013 (up from 870 million in 2000), but will then stabilise and begin to fall from 2025. This means – as in Europe, but more gradually and later – that China, too, cannot rely on replenishing and upgrading knowledge and skills solely by generational renewal. Sustaining the productivity and competitiveness of the Chinese economy cannot continue to rely on ever more hands, but must learn to make better use of the intellectual capital of a smaller workforce.

As the Ministry of Education has recently reported (2003), the current education and qualification levels of the Chinese workforce are inadequate to meet the country's economic and social development needs. On average, today's adult Chinese (aged 25+) have benefited from 7.42 years of education. The USA reached this level a century ago. Today, Korean adults have received some four years more education than the Chinese; and in the European Union, more than three-quarters of 22-year-olds currently complete upper secondary education, which translates (depending on country) into at least 11 years of initial education and training. Education participation rates for young people in China are rising fast, but it will take several decades before the positive effects can make a real impact on workforce qualification levels.

The argument that improving workforce skills fosters economic growth and competitiveness is by no means new (see here: Becker, 1975) and applies no less to developing countries than it does in the advanced economies (Bu, 1994). Since the early 1990s, many writers in this field have drawn attention to the inadequate levels of knowledge and skill amongst the Chinese workforce as one of the country's major

problems (Borgonjon and Vanhonacker, 1994; Child, 1994; Lu and Björkman, 1997, 1998; Nyaw, 1995; Tsang, 1994; Warner, 1988).

Approaches to workplace learning as competence development in China take their lead from North American concepts and theories. The main idea comes from McClelland's (1973) pioneering work on competency modelling (see also: Boyatzis: 1982; McLagan, 1980; Spencer and Spencer, 1993). These perspectives stem mainly from social and organisational psychologists and have been most widely applied in professional and managerial occupations. Chinese scholars began to look at competency models during the 1980s, especially at the Chinese Academy of Science's Institute of Psychology and the School of Labour and Human Resource at Renmin University of China. The development of management competency indicators and methods of competency appraisal that take managers' own perspectives into account has constituted a main challenge.

In this context, Boyatzis (op. cit.) defines job competency as underlying characteristics of employees, that is, motives, traits, skills, aspects of self-image, social roles or bodies of knowledge, which result in effective and/or superior job performance. Spencer's (op. cit.) universal competency model, for its part, was explicitly developed for application across a range of very different kinds of sectors, such as technology, retail, community service and general management. McLagan (1980) hence describes a competency as an 'attribute bundle' which may contain a combination of knowledge, skills and abilities as well as tasks, activities, outputs and results. Typically, a competency describes something more comprehensive than a specific job skill or knowledge; it implies a general capability that an individual may transfer from one job or task to another.

These models were introduced into China in the second half of the 1990s and have reached wider application with the introduction of the International Personnel Management Association's (IPMA) certification system from 2002, followed up in 2004 with a dedicated certification for human resource management based on a list of 22 specific competencies. The suitability of these approaches and systems in China still requires validation, but they are widely cited in current Chinese research studies on the identification and assessment of managerial competence. At present, relevant research in China focuses on three aspects: above all, on constructing competency models appropriate for given sectors and functions; in addition, the factors that influence competencies and their development together with the relationship between competency and performance.

Managers' competency models

In their survey of 240 middle managers working in state-owned enterprises, Gu, Li and Zhu (2001) asked their respondents to identify the competencies that, in their view and experience, they had acquired during the current Chinese economic

transformation period. They affirmed the following qualities: strategic thinking and management skills, an anti-bureaucratic attitude, profit orientation, honesty and business ethics, product and service quality consciousness, innovation capacity, tolerance and empowerment, interpersonal and communicative competence, self-management, teamwork and capacity to compromise, and IT skills. Ke and Cheng (2006) then sought to develop an index of management competence by interviewing senior managers in the ten best-performing state-owned enterprises in eastern China's Jiangsu Province. The key competency dimensions (which were validated in a subsequent large-scale survey) that emerged were capacity to command, problem-solving, self-confidence, achievement motivation, compliance with authority, teamwork, social networking, and capacity to make an impact and to influence.

Shi, Wang, and Li, (2002) introduced an amended version of a 'generic competency dictionary' for senior managers that had been initially developed by a Boston company. This was then applied by Zhong and Shi (2004) to a validation study with 20 senior managers in family firms in the coastal city of Wenzhou. The most important competencies they identified were decisiveness, taking initiative, seizing opportunities, seeking information, awareness of the need to organise, exercising benevolence and consideration, exercising self-control, self-confidence, capacity for self-learning, and capacity to make an impact and to influence. These findings resonate to a great extent with those found significant for senior managers both in state-owned Chinese companies (Shi, Wang, and Li, 2002) and earlier research in companies overseas (Spencer and Spencer, 1993). However, decisiveness, benevolence and consideration for others appear relevant only in Chinese family firms.

The Behavioural Event Schedule used in the above study was adopted by He (2004) in a further inquiry of 84 senior managers in 28 family firms in Zhejiang province's two coastal cities of Ningbo and Wenzhou. The outcomes very much confirmed those of the preceding study and also connected these competencies to personality attributes demonstrated by the respondents in accompanying tests: senior managers are quick-thinking, demonstrate perseverance, and are perceptive, adventurous and self-disciplined individuals.

Senior managers in the Chinese communication industry also display the capacity to influence, have high levels of organisational commitment, show leadership, initiative and self-confidence, are motivated to achieve and to develop, are oriented towards customer service, seek information and can exercise interpersonal understanding (Shi, Wang and Li, 2002). These findings, based on experimental studies using competence evaluation technology with a variety of methods, verify Spencer and Spencer's (1993) competency coding index. Pan (2005) also used an adaptation of Spencer's index to explore the competency model of project managers in the IT industry. Interviews with 24 project managers in Zhejiang province and Shanghai concluded that the most significant dimensions are: achievement motivation, initiative, information seeking, customer relationship, negotiation, influence,

professional skills, staff development, leadership, cooperation, risk identification and management, and time management.

High-performing IT project managers, asked (by Yao, Wang and Chen, 2004) in semi-structured interviews and then via a questionnaire survey to specify the elements of a competency model for their occupation, came up with the following dimensions: charisma (charm, honesty, openness, commitment, caring for those under one's supervision), ability to learn, to make judgements, to plan well and with foresight, the capacity to analyse situations precisely, to handle crises and manage risks, interpersonal and communication skills, sense of and capacity to adopt responsibility, and to display team spirit and a sense of justice.

Chinese bank managers who had received their training in Chinese Communist Party schools offer a somewhat different competency model from that of IT project managers. Zhang (2004) interviewed 18 senior managers from this background at the China Ever Bright Bank, and they place emphasis on having experience in the banking sector and an academic background, keen marketing consciousness, strategic insight and innovative orientation, public relations skills, capacity to organise and coordinate, calm stability and self-discipline together with high-level integrity and credibility. In a large-scale study using a variety of inquiry techniques, Wei and Zhang (2005) elicited the competency models of customer service managers in commercial Chinese banks. The six main categories of competence are information management, product presentation skills, managing relations with clients, self-motivation, advice and problem-solving capacities, and coordination and communication skills.

Marketing managers in China as studied by Wu (2004) delivered material that could be clustered into four main competency categories: personal attributes (mainly related to creativity, confidence, determination and risk-taking), management effectiveness (mainly linked with the capacity to seek out and apply information and knowledge), organisation and coordination capacities; and leadership qualities (including strategic planning and communicative competence). Gu and Zhu (2001) collected competency model interview data from both 43 human resource professionals and 78 human resource management university students in Shanghai. For these groups, the key aspects of professional competence are: analysis and problem-solving, communication and people-orientation, service orientation, ability to learn, self-control and capacity to cope with stress, adaptability and initiative, being well-intentioned – and knowledge of human resource management itself.

Fu and Wang's (2005) behaviour event interviews with financial managers and accountants produced three main categories of competencies: basic attributes (sense of duty, reliability, principled action, discretion, team spirit), basic ability (leadership and executive capacity, planning and time management, capacity to delegate, guide and train) and professional attributes directly linked to occupational content. In a comparable study of 35 accountants, Ying and Wang (2005) placed

their findings into the same typology, but with specific contributing elements: basic attributes (patience and delicacy, confidentiality, reliability, responsibility, principled), basic ability (independent working, learning ability, work planning and time management) and professional attributes which are once more linked to specific occupational knowledge and skills.

Finally, in a small-scale intensive study, Yang and Yang (2005) were able to list the competency model for senior managers in manufacturing technology as company management orientation, cost-and-profit awareness, planning, organising and judgement ability, leadership, analysis, reflective and decision-making capacities, conscientiousness, initiative, time management, result-orientation, honesty and sincerity.

These 14 Chinese research studies on managerial competence profiles as judged and validated by managers themselves across a wide range of sectors (state-owned enterprises and family firms; communication and IT; banking, financial and accounting services; marketing and retail; human resource professionals and manufacturing technology) throw up a hierarchy of congruence on a set of core capacities that managers, particularly at senior levels, require.

Half of the studies mention as managerial competencies:

- strategic insight and planning;
- initiative and self-motivation;
- organisation and coordination;
- information seeking/management;
- leadership capacity.

One-third of the studies mention as managerial competencies:

- learning to (self-) learn;
- (self-)confidence;
- capacity to influence;
- communicative competence.

A quarter of the studies mention as managerial competencies:

- people/caring orientation;
- service orientation;
- self-control/self-discipline;
- teamwork/team spirit;
- time management.

Interestingly, qualities such as creativity, openness, adaptability and the willingness to take risks are each explicitly mentioned in only one of the 14 studies. Additionally, many of the attributes that are mentioned overall are rather like personality attributes than competencies, for example: charm, reliability, integrity, sense of duty, steadiness, being well-intentioned.

On the whole, Chinese research to date has focused on defining what competency is and what kinds of competencies employees need to work in modern work organisations, with managerial competencies at the forefront of concern. The research reviewed here is also mainly rooted in social and organisational psychology and primarily uses testing and survey methods. The interest in subject-oriented approaches to constructing models of occupational competence is strong, that is, the approach to competence development does not typically adopt an externalist perspective that begins from objectivised, rationalist accounts. To date, however, research efforts have paid less attention to how competencies are acquired, whether in the workplace or elsewhere.

Factors that influence competency models

In their study of middle managers in state-owned enterprises, Gu, Li and Zhu (*op. cit.*) also investigated the influence of respondents' age and education on their views of managerial competencies. Predictably, they found that with increasing age, the importance placed on knowledge and skills rises, whereas the significance of openness and coping capacity falls. The higher the educational level, the greater the judged relevance of communicative competence, the lower the importance placed on innovative awareness – possibly because this is taken for granted by the well-educated employees who believe their leaders do not need to be innovative in the management of the company.

Wang and Chen (2002) designed two sets of key competency scales for 220 managers and deputy managers in 51 companies using competency-based job analysis techniques. Two core dimensions of managerial competency emerged: traits and skills, whose components and relative weighting varied between the two groups as follows:

- managers' traits: honesty, conscientiousness, responsibility, with tendencies towards power and values;
- managers' skills: monitoring and co-ordination, strategic decision-making capacity, motivating and authoritative capacity, creativity and innovation;
- in comparison, honesty and responsibility were less prominent as traits of deputy managers, as were their creative and innovative skills.

This suggests that the level of managerial function exerts an influence on competency profiles as judged by post-holders themselves. This is echoed in a study

of 339 Chinese military academy cadets and their supervisors, in which Luo et al. (2004) based their competency model scale on the Delphi technique. The interest of this study lies in the coherence of the competency ratings between peers (between cadets, between supervisors) and across the two groups (peers vs. supervisors). In all cases, coherence reached statistical significance, but was highest between peer-peer ratings, and these findings were stable. It may be that peer-peer congruence represents generational trends towards greater congruence of understandings of competency, but it could equally be the case that understandings of competence change and differentiate with life-phase and occupational experience. Such issues call for further research.

Competency and performance

There is much less Chinese research in this area, but Wu's (2004) study of marketing managers found strong correlations between competencies (job-related knowledge, normative management, human resource management and conceptual thinking) and managerial performance. Based on testing instruments developed by Zhong, research by Huang and Chen (2004) on middle managers in higher vocational schools explored the relationships between competency and organisational citizenship behaviours (OCB). OCB means that for the interests of the organisation, organisation members should take the initiative not only to do "their duty" but also to help their colleagues, protect organisational resources and do more than the minimum amount of work that is required. When members act in this way, the organisation does not reward them financially. But organisations will take this behaviour into decisions about raises and promotions. That is, such behaviours are not tied directly to rewards (Farh, Early and Lin, 1997; Organ, 1988). The results indicate that the latter strongly depend on achievement orientation, capacity for innovation and the social texture of the organisational environment. This suggests that individual qualities coordinate best with competencies-in-practice when the social environment is conducive to personal-professional development.

Additionally, Jin, Chen and Wang (2004) created a managerial competency situational test for interpersonal competence, problem solving competence and integrity, seeking to elicit their relationships to job performance. Their study of 171 senior managers in Shanghai and Hangzhou showed that position, gender and ownership make a difference to test outcomes.

The top managers get higher scores on the general competencies and in all the dimensions. Significant differences also exist between top manager and supervisors with respect to interpersonal competencies and problem-solving abilities ($p < .05$). Female managers performed better in the dimensions than male managers, especially in conscientiousness and integrity ($p < .01$). The author attributed the difference to the situational test and the small sample in the study. Moreover, problem-solving competence predicts job performance and interpersonal

competence, whereas interpersonal competence and integrity together predict commitment to the job.

In conclusion, published research from China dealing with the construction and profile of competency focuses heavily on managerial competencies in general and in specific occupational and industrial sectors. Little exists that is relevant for lower-level and manual workers, and there is virtually nothing on work organisations in the non-profit sector. The studies that do exist are therefore restricted in scope and, furthermore, their findings cannot readily be generalised to the population at large – the samples are too small in relation to population size. In addition, their results need to be brought together more systematically, in both theoretical and empirical terms, both to inform future (also comparative) research and to render them useful for policymaking in the continuing education and training field.

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Competence development as workplace learning in German-speaking Europe

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Introduction

Both competence development and workplace learning are attracting increasing research and policy attention throughout Europe, both independently and in relation to each other. Macro-economic change (sharper, globalising competition), technological innovation (digitalisation of products and services) and socio-cultural development (individualisation, mobility and cultural globalisation) are generating the reconstruction of working environments, tasks and processes in a variety of ways. At the micro-level, both companies and employees must find ways to respond to the resulting demands for innovation and quality in rapidly changing working contexts. At the same time, people living in today's western societies increasingly expect greater personal freedom and opportunities for self-actualisation. These expectations apply to their working environments too, so that organisations are also changing in response to human and social preferences as well as to economic and technological pressures.

In all these respects, continuing vocational education and training (CVET) plays a key role, both for employers and employees. More broadly, vocationally relevant adult learning is an essential dimension of putting lifelong and lifewide learning into practice, most importantly in the positive sense of widening opportunities and access to learning as personal development and social empowerment, above all for the low-qualified and the 'learning-distanced'. Companies need and increasingly want to release and make best use of employees' actual and potential know-how, whereas workplaces comprise everyday, directly accessible contexts for practice-based learning by doing. Employees can and should benefit through enhanced self-actualisation and satisfaction at work, recognition of achievement and improved employment and career chances within and beyond their organisation.

The phrase competence development as workplace learning implies that workplace learning is the paradigmatic and prime locus of and modality for competence development. This also restricts the scope of reference to those who have access to workplaces: employees above all, but additionally trainees (apprentices; students undertaking work experience and placements), adults on retraining schemes (for the unemployed and those returning to the labour force after a period of absence) and those (of whatever age and stage) on training mobility placements (in other companies, regions or countries). The phrase suggests that competence development can best be achieved and demonstrated through workplace learning,

or, alternatively, that it is more difficult to facilitate and recognise in other learning sites, notably in formal settings (schools, colleges, universities).

The central questions for this review paper are therefore:

- What are the defining features of workplace learning?
- How does non-formal and informal workplace learning contribute to competence development?
- What are the features of learning-conducive working environments?
- Why does or potentially could workplace learning appeal to (which kinds of) employees?

This contribution draws on recent (mainly within the past five years) conceptual and research literature written (with some exceptions) in German²⁷, referring (in the first instance) to German-language education and training discourse and making empirical reference (for the most part) to Austrian and German contexts. Little relevant research-based literature exists for Switzerland and virtually none for Liechtenstein, whose policies and practices are largely based on Austrian and Swiss arrangements, not least because many Liechtensteiners study, train and work cross-border. Italian South Tirol-Alto Adige with a German-speaking majority also has very close links with Austrian Tirol.

These ground rules exclude relevant literature about the German-speaking countries written in other languages; German-language sources suffice. Anglo-American sources are also frequently referenced in the relevant German-language literature and belong to its referential discourse (far less so in reverse). This generates some arbitrariness and artificiality: discursive boundaries do not necessarily equate meaningfully with language communities or nation-state borders, and empirical findings may well hold across them.

German-speaking countries make up a relatively large share of the European population. Europe's German-language communities call on long-established and significantly self-referential intellectual and scientific discourses, not least in philosophy, social theory and education. Austria and Germany also have longstanding distinctive systems and practices in the vocational training field, most particularly expressed in the 'dual system' of apprenticeship and in the role of the social partners in providing, regulating and financing training at all levels. Their education and training systems distinguish clearly between general and vocational tracks and qualifications, each with specialised institutions and personnel. Concomitantly, in German-speaking countries 'occupational/industrial pedagogics' (*Berufs-/Wirtschaftspädagogik*) is an independent university subject and research

²⁷ European comparative reports provide concise and up-to-date material and are generally available in English; some writers also publish in German and English. Where English-language references are available, these have been included to enhance accessibility for non-German-speaking readers.

specialism, discursively and professionally distinct from 'general pedagogics/educational science' (*allgemeine Pädagogik/Erziehungswissenschaft*).

These features indicate the strength of the social and functional boundary that divides education (*[allgemeine] Bildung*) and training (*berufliche [Aus-/Weiter] Bildung*), which forcefully expresses itself in science, politics, social institutions and learning provision. For some, the division simply represents complementarity of content, method and purpose. For others, it takes on a more antagonistic character: training stands for the instrumental, economic learning imperative, whereas education stands for learning as an intrinsically motivated, individual process of personal and social development. Academic writing on this topic sometimes strays into polemics: learning for vocational purposes becomes neo-liberal control, whereas open-ended general education is the source of all salvation. Interestingly, the reverse polemics (training is relevant and progressive, education is abstract and ineffective) find common expression in popular discourse, but seldom in academic discourse.

Most importantly, the theory and research worlds of education and training in German-speaking countries exist in relative isolation from each other. The policy priority now attached to implementing lifelong learning, whose logic presages an integrated architecture for learning throughout and across life, has prompted considerable debate amongst German-speaking educationalists. On the one hand, lifelong learning has been largely interpreted as the demand to raise participation in adult learning, both general and vocational. On the other hand, it has been seen as an opportunity to raise the social status of VET over against that of general education. Whilst many German-speaking educationalists express great concern that the instrumental economic imperative is positioned to colonise (and potentially enforce) learning of all kinds and for all ages, vocational training specialists are broadly positive about the potential of non-formal and informal learning for widening access and improving the quality of training outcomes.

German-language critiques of the concept of competence development as contrasted with the anchor concept of *Bildung*²⁸ focus on its lack of precision and its posited proximity to the instrumental economic imperative. Workplace learning, on the other hand, is judged to offer a rich und underdeveloped site for releasing individual (employee) and collective (organisational) potential. Competence development as workplace learning might therefore be viewed unfavourably by educationalists, insofar as it suggests an unpalatable definition and purpose for workplace learning. Vocational training specialists, however, might conclude that the

²⁸ This term is notoriously difficult to translate. It refers to an open-ended, inner-directed, individual and holistic process of learning as personal, cultural and social development guided by intrinsic interest, whose aim is the formation of a rounded, pro-active and autonomous subject capable of critical reflexion and reasoned judgement. The only possibility in English is to use the term education itself, perhaps with the prefix of 'general' or (in American English) 'liberal' to underline the meaning.

phrase claims too much for workplace learning: non-formal and informal learning alone cannot develop work-related competences to a satisfactory or optimal level. Formal initial and continuing training courses and the qualifications to which they lead remain essential.

Before turning to the four questions outlined above, this contribution begins by providing some basic information about Austria and Germany that is relevant for workplace learning in general, and then considers the idea of competence development, in order to clarify the nature of the critiques that are frequent in German-language educational science discourse.

Austria and Germany: economic and social context

Austria and Germany are affluent countries. In OECD comparison, Austrian per capita GDP and economic growth rates are above average, whereas unemployment rates are below OECD and EU averages. In the past 15 years or so, Germany has lost some ground in these respects, but is still doing comparatively well and economy and employment are currently on an upturn. Keeping unemployment rates low has been an Austrian political and fiscal priority since the 1970s, flanked by relatively early retirement and plentiful opportunities for second-chance education. Long-term economic affluence may have retarded the conscious shift towards a knowledge-based economy; this shift also began comparatively late in Germany, for broadly similar reasons.

Currently, Austria's economy is more resilient than that of Germany, but political and fiscal policies have changed direction in the past five years. In practice, lids on public expenditure levels have deepened existing resource shortfalls in education and training across the board, incentives and subsidies to offset individual and company costs notwithstanding. State-funded adult education has come under particular pressure, whereas companies, too, are investing less in VET, although the prospect of longer working lives and older workforces (due to an ageing society and rising pressures on pension systems) means that company-funded CVET will have to expand considerably. In addition, the high and rising proportion of people coming to live in Austria from other countries of Europe and the world place new demands on education and training systems, including basic skills, language and re-training courses for adults (cf. OECD, 2004).

Both Austria and Germany place great importance on occupational identity and formal qualifications; these principles underpin their education and training systems and shape attitudes towards what counts as learning and how learning outcomes are best recognised. This means that systems for the recognition of prior experience and learning (APEL) are relatively underdeveloped in comparison with other parts of Europe (such as France, the UK, Ireland and the Nordic countries; OECD, op. cit.). Both countries also share a firmly-rooted commitment to the importance of the Social

Dialogue between government, trades unions and employers in shaping labour market and employment policies and measures. This co-operation extends naturally into VET policy and provision, in which the social partners are directly involved. The system is organised around reaching consensus, which may privilege continuity even when change might be more appropriate. It also tends to reduce market-based competition amongst education and training providers, in favour of ensuring that all interested parties can operate freely on 'their' part of the terrain. This also means, however, that adult learning providers are not, and do not have to be, primarily profit-oriented.

In both Germany and Austria formal responsibility for the education and training system is split between the ministries responsible for education (above all, for schools) and labour affairs (above all, for vocational training). Universities fall under the ministries, or sections of ministries, responsible for science and research. Both countries are federal states and many powers lie in the hands of the regions (*Länder*) or are shared between national and regional authorities (BMBWK, 2003; BMBF, 2003).

Austrian and German initial general education systems traditionally offer differentiated tracks and pathways from lower secondary level onwards, whereby participation in some form of general or vocational education is compulsory through to the age of 18. From the age of 16 at the latest, this can also take the form of a dual system apprenticeship. The tracks and pathways offer varying status and prospects; those who want to go on to university studies must complete upper secondary education of a specific kind (*Abitur; Matura*). In international comparison, upper secondary education completion rates are well above average in both countries, but drop sharply at tertiary level, especially so in Austria.

In both countries, relatively high proportions of young people follow VET qualification tracks, whether in the dual system or via school/college-based courses. 'Second-chance' provision exists, but is time-demanding to complete. Most system-internal mobility relegates people down rather than up; those who do not complete upper secondary education increasingly find themselves in a difficult position on the labour market, particularly as recent years have seen a decline in the numbers of apprenticeship places offered by companies. Both Germany and Austria prefer to rely on pressure exerted through the Social Dialogue to assure a sufficient supply of apprenticeship places, but success remains patchy at best and no levy system exists for companies that do not respond positively.

New models of practice-oriented school-based IVET have not yet found broad acceptance amongst employers. In addition, broader and more generic occupational specifications have not yet been introduced in Austria. In Germany, this process is underway and it is an important one in terms of the transferability of VET qualifications and thus flexibility of movement on the employment market. Many commentators (for example, Geißler, 1996; Ribolits, 1998) argue that the dual system, which worked well for a long period in both countries, now requires basic structural and pedagogic reform. Its model of workplace learning was better suited to labour markets with lifelong

occupational and employment stability and with clearly demarcated occupations and job descriptions; these conditions no longer hold (Baethge, 1999; Wittwer, 1992). Its workplace learning pedagogy is grounded in the hierarchical sequence of occupational mastery in which the individual gradually acquires status and autonomy in a specialised field. This does not sit well with today's demands for active competence development from the outset and throughout working life, nor with curricular modularisation and self-organised learning (Gruber, 2004).

The main providers of state-funded adult training and re-training measures are the two countries' employment services (*AMS; Arbeitsagentur*), whether directly or indirectly. However, adult education centres (*Volkshochschulen*), founded more than a century ago, are the most popular and differentiated network of adult learning provision in both Austria and Germany, catering to wide range of economic, political and social interest groups. Overall, adult learning participation rates in Austria and Germany fall into the international and European middle range, and are somewhat better specifically for CVET (OECD, op. cit.). Much access to adult learning comes via the workplace: company-based specialist training is the most common form of learning in adult life; OECD (ibid.) includes case studies of good company training practices in Austria. As elsewhere, the better-qualified, those in higher-level jobs and those working for large companies participate more frequently.

Eurobarometer survey findings (CEDEFOP, 2003) show that there is awareness that lifelong learning is important. Across then 15 member states 88% of the respondents disagree with the statement that it is not important. In Germany, this proportion is considerably above the EU-average (95%) while the rate in Austria is clearly below (78%). 82% of all respondents agree that learning should not only take place when one is still young. The proportion in Germany is 85% and in Austria 77%. One third of the respondents has taken part in some form of education or training in the past year (32% in Germany and 36% in Austria). Among those who have not taken part 20% would like to do so (31% in Germany and 14% in Austria). With respect to workplace learning, two-thirds of adults in Europe report that they have gained the knowledge and competences they need for their current job through doing the work itself and by workplace-based training. Austrian respondents are even more likely (72%) to say so; German respondents also place particular emphasis on what they learned in their initial education and training. Survey respondents throughout Europe report that they participate in training to improve their skills in general and to prepare for more demanding tasks, and at least one-third of this learning takes place at the workplace or directly on-the-job, including informally. A substantial majority of Austrians (73%) and of Germans (86%) say they are prepared to invest their free time in training activities, which suggests high commitment to training. In reality participation rates run at somewhat lower levels (Austria: 53%; Germany: 59%; EU25 average: 57%). This apparent gap between training commitment in principle and training behaviour in practice is a characteristic finding, the background reasons for which are complex (cf. Chisholm, Mossoux and Larsen, 2004).

‘To be approached with caution’: competence development

In English, the terms skill and competence are frequently used interchangeably, although they have rather different heritages and connotations. Etymologically, skill comes from Old Norse and competence derives from Latin, that is, from different linguistic and cultural antecedents. Although the meaning of skill has broadened (Keep and Mayhew, 1999), it traditionally connotes manual trades that require significant training and experience for competent task performance, typically requiring physical activity. In English the term skilled worker still evokes the image of a man (not a woman) wearing (often dirty) overalls in a factory or workshop with a spanner in his hand. This means that skill is semantically classed and gendered, and it means that the term is much less likely to be used for activities and occupations that are associated with a high level of education and with the acknowledged exercise of intellectual or aesthetic capacities.

There is no equivalent for the term skill in modern German, whereas *Kompetenz* derives from Roman legal provisions defining who has rights to decide and act in given situations.²⁹ To denote aspects of occupational skill and competence, modern German has traditionally used a range of other terms which relate to knowledge, abilities, dispositions and capacities. In addition, the term qualification is a central reference, both in terms of formal certificates and proven capacities. Both Germany and (even more so) Austria place particular emphasis on the possession of certificates and diplomas; these strongly define the educational and occupational fields and levels to which people have access (Otero, McCoshan and Junge, 2005, relevant country chapters).

VET specialists working in English, French and German now routinely use the term competence to refer to individual occupational and job performance, increasingly with reference to explicit criteria and standards. Cedefop’s multilingual VET Thesaurus defines competence as “the ability to apply knowledge, know-how and skills in a habitual or changing situation” (Tissot, 2004: 47). This emphasises not only applying what one knows but also being able to transfer this capacity, i.e. context

²⁹ Huber (2004) gives an interesting history of the meanings and uses of the term *Kompetenz* and its antecedents through to the middle ages in German-speaking regions of Europe. By the 16th century, these included the idea of competing with others to achieve the same aim or prize, that is, the idea of comparative performance. By the early 19th century, being competent included the capacity to form judgements, based on the possession of insight and knowledge. In the 1960s, new conceptual dimensions of competence entered German-language discourse from the USA via the psychology of motivation (competence as performative action by individuals, enabled by self-motivated, intrinsically oriented interaction with their environment) and Chomsky’s theory of speech acts (by which specific linguistic performance is generated by potentially infinite communicative competence). The German-language literature on competence has mushroomed since 1990, focusing on competence (outcome) and competence development (process) as demonstrably successful learning, which can be evaluated and compared between individuals. In this context, the differentiation of competence as a generic term into lists of particular competences is evolving apace.

independence, which fits conditions of rapid change and mobility in knowledge-based societies and economies. This is why ASEM-LLL's basic skills working group (ASEM Lifelong Learning, 2003) supports using the term competence rather than skill in English. The report argues that competence draws attention to the analytic and critical skills needed in the knowledge society, synthesises potential and capability, and can encompass tacit knowledge and skill within a more holistic, socially situated concept.

Competence, then, extends in principle across all categories of knowledge and skill. In particular, it readily connotes the kind of cognitive performance that people use to assess, address and resolve problems as these present themselves in different contexts. Performance, whether in the theatre or on the job, is an observable phenomenon. This has encouraged what Rychen (2002) calls an external, demand-oriented and functional approach to defining competence, which itself comprises "the ability to meet demands or carry out a task successfully, and consists of both cognitive and non-cognitive dimensions" such as emotions (ibid.: 7). Nevertheless, performance always requires a stage, so that context-independence is a relative and analytic quality; and performances can be evaluated, so that their quality relates to a continuum of expertise.

The emphasis placed on observable performance is one source of theoretical and practical difficulty with the concept of competence. On the one hand, performance may not be fully observable and observation itself introduces a relational dimension into the picture: what can be observed also depends on what the observer perceives. On the other hand, as with any form of empirical inquiry, measurement problems intervene: it continues to prove difficult to develop and apply valid and reliable techniques for evaluating performance. Many of the difficulties can be seen as technical, but some relate to the social construction of competence.

A second difficulty arises from the fact that competence is primarily located in individuals, or perhaps more accurately expressed, its observation and evaluation relies on the performance of individuals. Yet competent performances are enacted and regulated within communities of practice (Lave and Wenger, 1991; Wenger, 1998). This accounts for the rising interest in group-based competences and learning-conducive organisational cultures – which itself introduces even more complex technical hurdles for competence assessment.

The term competence is undeniably associated with the VET field. To date, its operationalisation in work contexts has indeed focused on finding ways to measure individual performance against objective, accredited standards. In this context, competence development means education and training (of whatever kind) that enables individuals to reach performance standards set by legitimated instances, from the individual employer through to European-level agreements. This places the phrase firmly into the sphere of learning for instrumental, external and practical

purposes, that is, it connotes training in the sense of *Berufsbildung* and not education in the sense of *Bildung*.

Competence development can, of course, be applied to other learning and social contexts; and it can be applied to collective performances. It is also possible to take a holistic and multi-dimensional approach to its definition, operationalisation and evaluation, which, in fact, is how German (and French) researchers approach it (Delamare le Deist and Winterton, 2005). In the German tradition (*ibid.*: 37ff), job performance was anchored in the idea of occupation (*Beruf*) as a distinct and unitary concept and practice, which cannot be broken down into its constituent elements, but rather comprises an integrated whole. This helps to account for the importance attached to developing holistic approaches to action competence (*Handlungskompetenz*), which is now the overarching anchor for specific and systematically related competence profiles across the vocational learning domains (*Lernfelder*) that have replaced the old-style occupational profiles (Straka, 2004; Austrian developments are similar).

At the same time, in the German (adult) educational science community at large, the response to using the terms competence and competence development is at best cautious and often highly critical (for example, see Arnold, 2002; Geißler and Orthey: 2002). The critiques centre on two main issues. Firstly, competence is an imprecise concept which is isolated from appropriate theoretical heritages, for which no clear and agreed definitions exist and which is subject to terminological inflation by the continual invention of new kinds of specific and equally vaguely defined competences. Secondly, competence development is not *Bildung*, and therefore does not contribute to and may well constrain the emancipatory essence of education as personal and social development.

Brödel (2002) takes a measured view, arguing that in modernising adult education as a whole, the concepts of *Bildung*, qualification, learning and competence should each find a place. The shift towards competence-based approaches to adult learning ("*die kompetenzorientierte Wende*") would not have taken place, he suggests, had existing approaches been able to take full account of the potential meanings and purposes of learning that have been brought into centre stage (for whatever reasons) by contemporary social, technological and economic change. The appropriate heritage for the concept of competence lies in the transformative theories of communicative competence represented by Chomsky and Habermas. But, he continues, the current discourse around competence reflects less the course of academic debates, much more the need to resolve practical social problems. In particular, company-based CVET (*betriebliche Weiterbildung*) has dismantled its traditional boundaries by making a concerted effort to open up to experiential learning in workplace settings. In doing so, it has opened the door for open-ended, holistic learning processes in VET contexts and for the integration and recognition of knowledge and skills gained in other contexts (for example, in the family, as reported in Gerzer-Sass, 2004, 2005).

Such developments echo with the broader progressive education tradition, and they resonate with the felt 'irrelevance' of mainstream education for the demands of everyday life, whether at work or in the community.

Exploring the potential of non-formal and informal learning in the workplace for competence development at both individual and organisational levels, together with attempts to delineate learning-conducive working environments, has hence become a major focus of VET research over the past decade (as amply demonstrated in the AG QUEM volumes from 1996 to 2005). This theme is taken up further below.

The parallel development of innovative ways to evaluate and recognise such learning,³⁰ which incorporate elements of self-evaluation, peer and group-based assessment together with process-based methods,³¹ is also likely to bring greater rapprochement between CVET specialists and adult educationalists. After a late start (because formal qualifications were long seen to suffice), these kinds of initiatives are gaining momentum in Germany (Seyfried, 2005). The situation in Austria is similar, where the social and political strength of the VET regulatory system may make it difficult for such alternative forms of validation of competence to achieve acceptance. To date, there are relatively few working examples (Junge, 2005; Schögl, 2005). The adult education association (*Ring Österreichische Bildungswerke*), for example, has adapted an approach based on the Swiss qualification book (Marty, 2001; for a further Swiss example, see Furrer: 2001); and the Zukunftszentrum Tirol (Triebel, 2005) has developed a validation process similar to the French *bilan de competence* concept.

What are the defining features of workplace learning?

The workplace is a specific social setting which, in principle, offers diverse kinds of learning opportunities and experiences (not all of which necessarily contribute directly to vocationally relevant competence development).³² These fall into three main types:

³⁰ Preißer (2005a; 2005b) documents some 50 initiatives in Germany since 1995 as part of a feasibility study to establish ProfilPass, a portfolio-based, guided competence self-assessment process (see: <http://www.bildungspass.de> [accessed 15.09.2006]; and Ambos et al.: 2005). The Austrian adult education server <http://www.erwachsenenbildung.at/fachthemen/fachthemen.php> [accessed 15.09.2006] provides a large on-line library of research and policy reports on non-formal and informal learning and its recognition/validation for the German-language community.

³¹ This is a large field of research and policy in its own right; it is not covered in depth on this occasion.

³² The German-language literature has not yet seriously addressed the transfer of competences developed in working environments for use in personal, social and civic life; this is probably a gap that applies in other research discourses too.

- in-company training seminars and courses, which take place off the job (and perhaps outside working hours);
- explicit training episodes taking place on the job (and therefore in working hours);
- seamless learning/working, in which the work process itself constitutes a continuous learning experience.

Initial vocational education and training (IVET) in German-speaking countries is effectively defined by the dual system, despite the fact that the numbers of available company-based apprenticeships have fallen and school-based IVET is increasing. The dual system foresees learning through and at work, complemented by periods of study at vocational schools and off-site training centres. This approach has also shaped the concept and practice of CVET, where companies remain the largest group of providers (Büchter and Gramlinger, 2005). As Frommberger (2005) points out, the workplace as a recognised learning space has a long-established tradition and legitimation in such societies. Workplace learning is systematically and institutionally integrated into the VET system, which rests on a legal framework of public regulation, operated through the Social Partners.

Paradoxically, this also means that until fairly recently, much workplace learning fell by the wayside. Organised workplace learning on and off the job (the first two categories above) defined understandings and practices, and these features were bound into validation systems leading to recognised qualifications. Seamless learning/working took place as it does everywhere, of course, and it undoubtedly contributed, as it will always do, to learning outcomes from more explicit and formalised work-based training. However, this kind of workplace learning was not an integrated part of the purposive training landscape, and did not attract significant research attention until the 1990s.

In company with many others, Dietrich and Gillen (2005) characterise current debates on company-based CVET as shaped by the shift towards individualised, subject-oriented learning processes and their pedagogic-didactic implications. Their key features include the anchoring of competence development in individual working contexts and the role played by self-directed, self-organised learning strategies. On the one hand, this promotes the concept of the active learner and, in principle, might enhance employee autonomy in the sense that workers gain greater control over their own knowledge resources and how they decide to use these in constructing their work-lives and biographies. On the other hand, companies' economic interests lie in the pooling of knowledge and competence, so that they need to tap into the processes and outcomes of workplace learning – to stake a co-claim, if one will, on the benefits individual employees draw from learning-conducive work environments. Workplace learning is, then, a contested site for playing out interests that are in part congruent, but to some extent in conflict (see here, for example, Dehnbostel and Pätzold, 2004).

The seamless dimension of workplace learning can therefore be understood in different ways. In its positive construction, it elicits tacit forms of competence development and mainstreams these into visible, recognised and collectively valued as well as organisationally useful resources. From this perspective, borderless learning in workplace settings accretes emancipatory potential. In its negative construction, it engages in the appropriation of subjectivity for instrumental, economic purposes and becomes an exemplar of Foucaultian disciplinary regimes, which not only enforce the self-organised formation of streamlined competence but also produce the exclusion of those who cannot or will not fit (see here, for example, Ostendorf, 2005).

Whilst the German-language literature generally supports greater recognition of informal learning in the workplace (that is, learning as a continuous, inbuilt element of everyday work process), this is usually in the context of continued support for the more formalised kinds of training at or near the workplace. In other words, the former should not and cannot replace the latter (Faust and Holm, 2001). Practical examples of workplace learning that are in the process of developing mixed forms along the formal/bordered and informal/borderless continuum are particularly interesting here. Elsholz and Molzberger (2005), for example, describe facilities near to, but not incorporated into, working places, which offer accompanied social learning spaces on demand and for specific problem-solving (learning islands, open laboratories, etc.).

Such developments may also represent a formalisation of the informal rather than a trend towards the informalisation of workplace learning. In contrast with the non-formal youth education field, where practitioners are typically very cautious indeed about the potentially negative effects of 'formalising the informal' on the quality of learning (see Chisholm, Hoskins and Glahn, 2005), German-language VET discourse seems to be more concerned about potential dilution of quality, should workplace learning become 'too' informal. There is little solid evidence to draw conclusions in one way or another, in either of these learning sectors. However, it does seem clear that the established features of workplace learning are in flux, moving towards new combinations of learning spaces in working environments. These changes deserve to be systematically monitored and analysed in terms of their effectiveness for individual and collective competence development.

How does non-formal and informal workplace learning contribute to competence development?

The role of non-formal and informal workplace learning for competence development is twofold. Firstly, competence is a capacity that, by definition, must be continually renewed in the course of activities and reflection. The workplace with its tasks, problems, strategies and aims as well as its organisational structures and social

relationships continuously stimulates competence development. Secondly, informal learning enables the competent and creative application of theoretical knowledge and thereby transforms knowledge into a resource for coping with structural change at both individual and organisational levels.

These aspects of workplace learning accrete particular relevance at biographical turning points in professional life, where individuals must re-tool their knowledge and competence to new requirements. In an empirical study based on interviews with 1 000 skilled and leading employees with a commercial academic training Staudt and Kley (2001) were able to show the importance of various forms of informal learning. Their respondents rated formally acquired knowledge as the least helpful when embarking on their first job. In contrast, informal learning based on communication such as observation, querying and counselling was remembered as very effective. Similarly, informal learning based on one's own experiences such as trial and error strategies, learning by doing and 'muddling through' were seen as particularly successful. Analogous patterns apply when employees are promoted to higher positions. Practical experiences are seen as most effective; formal learning and instruction-style learning are judged as less valuable. Informal exchanges of experience, dialogic social learning and learning by doing take on the highest significance; these are the modalities in which competence development takes place. Bergmann and Pietrzyk (2000) confirm in their research that competence development in work processes largely occurs via finding problem-solving strategies and solutions, which fits with Piagetian and Leontjewian theories of everyday active and reflexive problem-solving as the essence of learning processes.

Against the background of an increasingly permeable boundary between work and other life spheres, informal learning has also attracted attention as a medium to transfer competences between one sphere and another. Informal learning, for example, also takes place outside work. There has been some debate how employees can tap these learning opportunities (for example, see Kirchhöfer, 2000) but also those outside the labour market who are engaged in civic society based voluntary activities (for example, see Jaeger, 2001). Self-organised activities and initiatives, activities on the grey economy and casual employment are additional opportunities for informal workplace learning; these are important for those who are attempting to (re-)enter the labour market (Oehme, 2005; Spannring and Reinprecht, 2002). Informal workplace learning in state-subsidised jobs or third sector work projects is therefore equally relevant for the unemployed and for active labour market policies, as a counter-strategy for de-qualification processes. It can, moreover, bring those who are distanced to and disillusioned with education back into learning (cf. Spannring, 2005).

The capacity for transfer between different learning/working is a key issue. Theoretical knowledge and practical know-how are linked in a dialectical relationship through reflection and analysis. In this context, Schulz (2005) describes the 'Process

Rally' training project carried out in a German pharmaceutical company. Over a two-day period, self-organised, self-learning groups engage in a full production process simulation close to operational reality, in which each group has a specific set of tasks, but as part of a linked whole. The training space actively created by the participants opens up opportunities for communicative reflection-in-action. They thereby develop explicit, sustainable knowledge which contributes both to individual and to organisational learning. Erkinger (2006) draws similar conclusions from a European project on informal learning in social occupations, where exchange and evaluation of experience amongst professional practitioners fosters more effective learning-in-practice.

What are the features of learning-conducive working environments?

Non-formal and informal learning at the work place can be analytically subdivided into forms of learning and forms of working. Forms of learning include counselling, communities of practice, quality circles and learning on demand. The enrichment of learning opportunities in workplaces and work processes is the key feature. Forms of working place the emphasis on learning through work experience itself, such as project work, group work, job rotation, continuous processes of improvement and networks (Dehnpostel, 2003).

Learning conduciveness can also mean creating new learning spaces. Further training in work organisations can often be readily located in spaces close to real work process. The "open lab", for example, enables colleagues to meet up at agreed times to observe and analyse on the spot, thus acquiring direct understanding of their colleagues' perspectives and knowledge. Here, learning spaces are neither the workspace nor the classroom, and the trainers are colleagues, possibly with external support. In such contexts, pedagogic relations fuse with collegial relations (Elsholz and Molzberger, 2005).

Learning-conducive workplaces are associated with structurally flexible organisational environments (Frieling, Bernard, Bigalk and Müller, 2001), whose features include:

- adequate information on the aims and meaning of job tasks;
- effective participation in the specification of the aims, the planning and organisation of the work;
- opportunities for control and improvement;
- variable, complex but also manageable tasks;
- feedback on success and achievement;
- opportunities for communication and co-operation;

- opportunities for cognitive and emotional reflection.

Time for learning and its reflection is also important (Faust and Holm, 2001), though this is a resource in ever shorter supply, it would seem; seminars away from the workplace therefore also have a role to play.

Competence for lifelong learning has several dimensions. Firstly, it includes the ability to deal pro-actively with biographic-strategic changes and is thus a cognitive precondition for employability. Being able to relate one's own competences to new challenges requires a high level of reflexivity. Secondly, it demands intrinsic motivation, knowledge about sources of information and the ability to organise and control one's own learning. Thirdly, it requires initiative and determination (Baethge, 2003). Previous learning and working experiences together with prior education also influence the capacity to respond positively to learning throughout life – but personal characteristics are both preconditions for competence development and the result of personal and competence development processes, which may be fostered or constrained by the work situation (Bergmann and Pietrzyk, *op. cit.*; Baethge, *op. cit.*).

Social relations and group dynamics at work may also depress or foster motivation to learn. Ideally, the process of workplace learning is based on relationships of trust and the mandate to act, co-operate and learn for all members of the given community of practice. Power and influence in organisations is important, not only with respect to personal relationships (who can make somebody else do something, who can set the agenda) but also with respect to the recognition, interpretation and application of structures. Awareness of power relations can increase the ability to change views of the world and everyday routines and thus to learn (Erkingen, *op. cit.*). These factors are especially evident when organisational restructuring generates new tasks and responsibilities. Organisational learning implies negotiations about new conventions and norms with respect to social interactions and relationships, which can facilitate more intensive use of the competences available in the community of practice. Hardwig (2003) notes that these processes are challenging for all involved, and their socio-political features are typically under-estimated.

Workplace learning for all?

Opportunities for workplace learning are not evenly distributed. The capacity to learn throughout life (learning-to-learn competence) is strongly associated with initial formal education and qualification levels. Adults with higher levels of educational attainment are more likely to participate in non-formal job-related continuing education and training than adults with lower educational attainment (OECD, 2007; Baethge, 2003). This suggests that teaching and learning methods in different parts and levels of initial education and training systems may exert significant influence on dispositions and capacities to learn throughout life.

Assumptions about what counts as learning, knowledge and competence also appear to affect potential to benefit from workplace learning opportunities. Workplace learning is largely experiential and practice-based, and it takes place in complex settings with multiple aims. Where people's experience of teaching and learning has been largely confined to formal, classroom settings and traditional teacher-student relations, then it may be difficult for them to recognise the learning potential of the workplace and its more complex, covert pedagogies (Harteis et al., 2003; Bauer et al., 2004). Furthermore, to profit from complex learning environments, individuals also need a set of more generic social and cultural competences, such as ambiguity tolerance, capacity to draw comparisons and analyse their meanings, a sense of responsibility for the individual and social learning process in which one is engaged, and the capacity to recognise know-how and expertise in others (Erkinger, op. cit.; Stark et al., 1996).

Employee position within the organisation also influences opportunities for workplace learning: organisations invest explicitly in those in strategically important positions and these employees are more likely to find themselves in learning-conducive workplaces (Faust and Holm, op. cit.). Competence activating positions are thus associated with the core staff and – in general – those in standard and more stable employment, while inadequate learning and training opportunities are characteristic of atypical and less qualified jobs (Bergmann and Pietrzyk, op. cit.; Talos, 1999). In knowledge-intensive sectors (such as IT, media and consulting) employment contracts are increasingly individualised and results-oriented, so that employees become responsible for achieving the aims set and on time (Kolakowski, 2004). They are also more likely to be responsible for their own competence development and as such, they take on the qualities of human capital entrepreneurship to serve their own interest (*Arbeitskraftunternehmertum*; see here Gerst, 2003; Voß and Pongratz, 1998).

However, structural inequalities in access to learning opportunities stand in contradiction to modern organisational theory, which emphasises the need to transfer responsibility and decision-making competence throughout the system in order to increase the organisation's collective competence (Harteis, 2002; Bauer et al., 2004). As so often, practice and theory frequently diverge. Baethge and Beathge-Kinsky (2004) find, for example, that fully one-third of German employees are in restrictive working environments (as opposed to expansive working environments, see Kersh and Evans, this volume). This can but impact negatively on both quality of working life and maintaining employability.

Arguably, the competence development divide may ultimately be more difficult to overcome than that between the formally qualified and unqualified labour force; it is a much more complex expression of social and educational inequalities, and it is closely related to the divide between the knowledge-rich and the knowledge-poor that is developing rapidly in Europe's knowledge societies. However, research

suggests that organisational cultures and learning-conducive workplaces can foster workplace learning as competence development regardless of individual background advantage or disadvantage in educational or social terms. This means that the workplace really does offer a potentially powerful second chance for those who did not do well in initial education and training or on the labour market and in their employment careers to date. It also means that having a workplace is a prerequisite for gaining access to such a second chance. In the first instance, this implies maximising employment, especially for the least qualified, but it also suggests that concepts of the workplace should be extended to cover voluntary, leisure and family settings. These, too, are full of opportunities for competence development. If knowledge societies are to live up to their promise – as opposed to confirming their widely-discussed risks – then we must ensure that the potential of workplace learning for reshaping adult education and training opportunity and outcome does not reproduce the shortcomings of schooling and training in the industrial era.

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Workplace learning: Malaysia's experience

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Introduction

Workplace learning has become increasingly important during the last decade (ILO: 2006). Furthermore, learning has become far too important to be left to chance with respect to determining economic opportunities and the type of society that we want to create. The working environment has become a primary source of learning, and specifically of lifelong learning.

Until recently, Malaysia had no systematic public policy in place for fostering workplace learning. However, with the seventh Malaysia Development Plan, lifelong learning became the focus for improving the supply of human capital as the country works toward its aim to become a fully developed country by 2020. The Ninth Malaysia Development Plan, presented to Parliament by the Prime Minister in March 2006, strengthens this focus. In the coming five years, the country will undertake more lifelong learning initiatives with the aim of raising knowledge and skills levels in the population. The tertiary education sector is one of its priorities, workplace learning is another. Malaysia's political-economic agenda thus sees workplace learning as an important instrument in the nation's aspiration to join the ranks of the developed countries of the world (Muhamad and Idris, 2005).

Workplace learning is a process that derives its purpose from the context of employment and which applies to the whole of active working life (NIACE: 1999). Involving internal and external stakeholders, it constitutes recognised learning opportunities at workplaces as a formal component of a course or programme, offers opportunities for authentic assessment tasks and embodies appropriate quality assurance mechanisms. Workplace learning offers a means to overcome employee skills and competence gaps (Loogma: 2004; Abdul Hamid: 1995; Quek Ai-Hwa: 2005).

Miller (2003) describes workplace learning as a process with three consecutive phases:

- an initial cognitive phase, in which managers are encouraged to think differently, be exposed to and share new ideas and new knowledge;
- a behavioural change phase, during which managers internalise their new knowledge and change their behaviour as a consequence;

- finally, a phase in which effective improvement in organisational performance – based on whatever performance criteria the organisation uses to gauge success – takes place.

Innovation is important for modern organisations to maintain competitiveness in the newly-emerging, high-technology knowledge-based economies where the need for high-performance productivity shapes working practices (Burnside, 2001; Rademakers, 2005; ILO, 2006), Workplace learning contributes to developing capacities for critical reflection and problem-solving, for adapting to future change in job demands and also for gaining complementary generic competences (Burnside, op. cit.; Ng, 2001; Quek, 2005; Smith, 2004). Workplace learning is emerging as the prevailing mode of skills and competence development for adults and the key strategic instrument of human resources development agendas. (Cooper, 2004; Loogma, op. cit.; Smith, 2004).

In Malaysia, the implementation of workplace learning has been formalised. Muhamad and Idris (op. cit.) confirm that many Malaysians participate in formal workplace learning as part of their employment activities, and that there are a variety of ways in which they do so:

- attending courses at corporate universities (for example, UNITEN, Multimedia University and International Medical University) or taking postgraduate courses at universities in Malaysia or abroad;
- following distance learning courses, which are offered by most public universities in Malaysia and pursuing e-learning courses offered by the Open University of Malaysia;
- participating in training courses, seminars, workshops and conferences provided for public sector staff through the Department of Public Service (JPA) and INTAN (Institute of National Training Centre) or through secondment to courses in other countries (for example, Britain, Germany, Japan and Korea);
- undertaking industrial attachments and apprenticeship in the government departments and offices as well as at some participating Multinational Corporation;
- taking work-based competency courses (PTK) that are compulsory for all public servants;
- in the private sector, following courses conducted by the Human Capital Development Corporation (PSMB), the Federation of Malaysia Management Association and in companies themselves;
- participating in the Advanced Management Programme.

Workplace learning in the public and private sector: an empirical inquiry

We conducted this study to look at how participating or not participating in formal and non-formal workplace learning is related to generic competence development, non-economic values and professional development, comparing public and private employees. The competences included in the study are ICT skills, foreign language skills, social and cultural skills, health and safety knowledge and entrepreneurship skills. Non-economic values refer to quality of life, work satisfaction, self-esteem and personal development. Professional development includes promotion, productivity and expertise. Finally, the study sought to assess the impact of workplace learning on individual work performance scores as applied in the employee appraisal system.

Questionnaires using closed questions with Likert scale response options were distributed to random samples of 300 manufacturing employees in the private sector and 250 government employees. Response rates reached 45% for private sector employees and 42% for public sector employees; tables for all the data described in the text are in the annex to this paper.

Almost all respondents in both samples are ethnic Malays. Ethnic Chinese and Indians in Malaysia typically work in the service sector, which was not included in this study. In Malaysia, employed women are much more likely to work in government service than in manufacturing industry, so that two-thirds of public sector respondents in this study were female, whereas 87% of those from the private sector were male. In addition, those working in government are much younger: three-fifths were aged under 30, whereas in manufacturing two-fifths were already over 40 years old. Consequently, the majority of the public sector employees had less than five years' working experience at the time of the survey, whereas a quarter of those in the private sector could look back on more than 20 years' employment. The government employees are also better-educated than those in private manufacturing; one-third of the former hold a university first degree, whereas four-fifths of the latter had completed their education at the latest by the age of 17. Unsurprisingly therefore, the majority of those in manufacturing employment work as operatives or technicians, whereas a third of the government employees occupy professional and managerial positions.

72% of the government employees and 80% of those working in private sector manufacturing reported having participated in formal learning at the workplace; the remainder reported participation in non-formal learning – in the Malaysian context, this means they had sought learning opportunities on their own initiative, as opposed to learning offered through the employer. In other words, all respondents reported having experienced workplace learning of some kind. IT courses were by far the most frequent for both groups (well over 40% in each case), whereas few had taken part in foreign language or entrepreneurship courses (under 10% in each case).

Government employees were more likely to have taken social and cultural skills courses, and manufacturing employees were somewhat more likely to have followed health and safety courses.

The private sector employees had overwhelmingly attended short courses or in-service training lasting three days or less, which were somewhat more likely to have taken place at the workplace and which in almost all cases had been sponsored by their employer. Employers and the opportunity to extend one's knowledge and skills exert the strongest influence on their decisions to pursue workplace learning, with the influence of colleagues as the relatively weakest source of influence. Improving knowledge and skills is also the strongest influence for the government employees in the study, but in this case, good teachers/trainers are more influential than employers. Across the board of skills included in the questionnaire (IT, foreign languages, social and cultural, health and safety, entrepreneurship), government employees were more likely to report that the workplace learning in which they had participated had led to improvement. The strongest areas to which their learning had contributed are social and cultural skills. In relative terms, the least relevant area for both groups of respondents is foreign languages. For those working in manufacturing, workplace learning had most definitely contributed to their knowledge of health and safety.

Turning to the impact of workplace learning for quality of life, work satisfaction, self-esteem and personal development (that is, what we have termed as non-economic values), it is once more the government employees who report higher levels of benefit across the board. For both groups of respondents, however, positive impact on self-esteem and personal development are the two most prominent aspects. When asked what the impact of not participating in workplace learning would be, respondents from both the public and private sectors logically reply that positive non-economic benefits would be lower. However, the differences between their responses to the impact of participation versus non-participation are not as great as one might have supposed they could or perhaps should be. This prompts reflection on whether employees do not perceive the potential and outcomes of workplace learning as much as they might, that is, they do not necessarily realise how much they benefit from it. Alternatively, it could well be that workplace learning provision itself could benefit from quality improvement, so that employees do gain more, including in non-economic ways.

As far as professional development is concerned, both public and private sector employees in this study judge that workplace learning contributes most strongly to the development of their expertise. Beyond this, government employees are more likely to see benefits accruing for their productivity and for their chances of promotion (which are in fact generally better than in the private sector). Whether formal or non-formal in nature, workplace learning is judged by both groups to have a moderately

positive impact on their performance appraisal at work, but those in government service are rather more convinced of this.

Conclusion

Overall, it seems that government employees benefit more from workplace learning than do those working in private sector manufacturing. We are, however, looking at two quite different groups and generations of employees: young, well-educated women in the early stages of their careers in the public sector, over against older, less educated men having worked for some time in the private sector. The former typically have better jobs with chances of advancement, the latter generally have lower-status jobs with fewer career opportunities ahead of them. These younger women are also more likely to have had positive experiences of education so far, and therefore they are more open to the potential of workplace learning in adult life, so their perception of the professional and personal benefits rises accordingly. Additionally, it is quite likely that the provision of workplace learning in the public sector is of higher quality. Certainly the private sector respondents were very likely to have attended only very short training courses.

We can conclude that access to and participation in workplace learning shows similar trends to those that have been found throughout the world, in that those who are better placed in terms of educational and professional levels are more likely to be offered more and better quality opportunities for further training, are more interested in participating and derive greater benefits from doing so. In this particular case, the gender-specific differences between young Malay women and older Malay men are notable and may invite speculation on the future shaping of gender relations at work, in the labour market and in society at large. Should these findings be confirmed in future studies covering other industrial and occupational sectors, then this would mean that workplace learning, as is already the case for school and university education, can serve as a route to improving Malaysian women's life chances and quality of life in the coming decades.

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Competence development and workplace learning in the UK and Ireland: an overview

Natasha Kersh and Karen Evans

Introduction

This contribution focuses on workplace learning (WPL) and competence development with particular reference to organisational and learner motivation, the recognition of workplace learning and the conditions for the management of WPL. The difference in the size of the two countries means that many of the references come from research conducted in the United Kingdom, but theory and research in Ireland follow similar lines and reach similar conclusions.

Adult learning that takes place outside the classroom has been an important area of research in a number of countries in recent years. Issues such as informal learning, community-based learning and workplace learning have received recognition as important areas of research in many studies (as noted by Boud, 2006). Rapid changes in economic and social development and the impact of globalisation have contributed to the changes in perception of adult education and workplace learning. NIACE (1999), for example, has long argued that workplace learning must be a core component of national strategies for lifelong learning, through bringing about higher participation in learning by workers together with expanding the range of learning activities and achievements accessed at, for or through the workplace.

Streumer and Kho (2006) observe that in both Ireland and the UK the influence of government on vocational education and training has been ambivalent; as in the rest of the Anglo-Saxon world, workforce development has been the responsibility of employers. The International Labour Organisation (ILO, 2002) points out, that countries with an Anglo-Saxon tradition tend to give employers greater autonomy in setting and changing working practices, imposing fewer legislative obligations to consult and train their employees. However, there are limits to the degree and scope of autonomy that employers in these countries enjoy, particularly where unionisation plays a significant role.

Public policy context: UK

Low levels of productivity in the UK – which are linked to low levels of skill in the workforce –, low levels of participation in vocational training and high differentials between social groups prompted the Labour government (which entered power in 1997) to develop a strategy focused both on raising standards and on promoting social and economic inclusion (Leney et al., 2004). Miller (2005) notes that the UK has moved away from a provider driven and technical view of vocational education

and training (VET) to a system where employers and employees together lead the way in skills development.

Recent years have seen a number of government publications such as *The Learning Age* (DfEE, 1998) and the launch of Skill Strategy³³, which have stressed the importance of both adult learning and the workplace as an important site of learning (see also: Felstead et al., 2004). These have emphasised the significance of the link between firstly, education and training provision and secondly, employers' demand for skills (Unwin and Fuller, 2003: 2). The Cabinet Office Performance and Innovation Unit (PIU, 2001) underlined that the demand for what is called workforce development must come from employers as well as individuals (Unwin and Fuller, op. cit.: 4). In addition, a number of national initiatives aimed at supporting a widening of participation in workplace learning have been launched, including: Employer Training Pilots; Ufi/LearnDirect; Investors in People; Adult Learners' Week and various national literacy and numeracy skills campaigns and initiatives.

Public policy context: Ireland

Although economic development in Ireland during the last decade has been rapid (O'Connor, 2006), its post-compulsory education and training system is characterised by a number of problems, such as low levels of adult learning, continuing vocational training and qualification levels: "Compared to other European countries, Ireland had effectively no clear adult educational strategy until 2000 ... and a very low expenditure on all forms of adult education. Until almost the end of the 1990s, Irish firms spent less on training their workforces than similar firms elsewhere in Europe" (Wickham and Boucher, 2004: 385).

The issue of skills development and skills upgrading is gaining importance in Irish workforce development. The report of the Irish *Taskforce on Lifelong Learning* (*Taskforce on Lifelong Learning*, 2002: 43) notes that the country's long-term competitiveness depends on providing opportunities to upgrade skills for all workers, especially the lower-paid, who are much more likely to have low levels of education

and qualification, whereas the skills demands of all jobs are rising. The National Adult Learning Council was created in 2002 to promote a co-ordinated strategy for the development and delivery of adult learning across levels and sectors, including workplace learning. The National Social Partnership process represents a further significant inter-departmental and inter-agency initiative between government departments and the social partners. An integrated approach to the delivery of education, training, welfare, social inclusion and industrial development policies is forged through integrated planning under a variety of national plans (National Development Plan; Programme for Sustaining Progress; National Action Plans on

³³For further info: <http://www.dfes.gov.uk/skillsstrategy/> [accessed 01.08.2007]

Employment; National Anti-Poverty Strategy) together with the contribution of expert groups, as, for example, future skills needs (European Commission, 2003).

Since the mid-1990s, government publications have made an impact on the development of workplace learning in Ireland. These include: Charting our Education Future: White Paper on Education (1995); Education Act 1998; Qualifications (Education and Training) Act 1999; White Paper on Adult Education: Learning for Life (2000); Report of the Task Force on Lifelong Learning (op. cit.). Ireland's report to the European Commission on progress in implementing lifelong learning (Taskforce on Lifelong Learning: 2003) brought together the key messages of these documents:

- prioritise state investment towards those most at risk, and tackle disadvantage in terms of key attention to literacy and numeracy, preventing and addressing early school leaving, tackling unemployment, and providing second chance education and training for those with low skills;
- ensure a supply of high-quality manpower to address skill needs, widening access to lifelong learning in the context of an integrated approach to education and training;
- enhance quality through staff development, research and evaluation;
- embed education and training provision within a national framework of qualifications, providing for quality standards, streamlined progression pathways, mechanisms for credit accumulation and accreditation of prior and work-based learning, and embracing learning in formal, non-formal, community and workplace environments.

The specific priorities identified in the White Paper on Adult Education: Learning for Life (2000) are

- implementation of a national adult literacy strategy;
- expansion of part time options in further education through a Back to Education Initiative aimed specifically at young people and adults with less than upper second level education, and including a Basic ICT skills strategy;
- improved opportunities for adult participation in third level education;
- a strengthened role for community education;
- establishment of a National Adult Learning Council and Local Adult Learning Boards for improved co-ordination, integration and planning, nationally and locally.

Another important document in this context, the 2003 Report of the Task Force on Lifelong Learning focused more specifically on learning for those in the workplace and emphasised

- developing and implementing the National Qualifications Framework;
- ensuring basic skills for all;

- providing comprehensive guidance and counselling;
- addressing delivery, access and funding issues;
- better learning opportunities in the workplace and for workers.

Benefits of workplace learning

We argue that initiatives launched to develop workplace learning aim to tackle a number of economic and social factors such as low levels of productivity, low levels of skill in the workforce and low levels of participation in training. In this context workplace learning is often characterised, conceptualised and promoted as advantageous for both employers and employees and the state, at least potentially (Lee et al., 2004). The following economic, social and personal benefits have been associated with workplace learning:

- for policy-makers, as noted by Unwin and Fuller (2003), the concept of learning at work offers the potential of delivering economic benefits as well as tackling social exclusion; Fuller, Munro and Rainbird (2004) argue that policy-makers focus on workplace learning as a way of improving organisational performance and, at the aggregate level, national economic success;
- for educationalists and trade unionists, workplace learning represents the opportunity to reach adults who do not participate in, or have little access to, formal learning opportunities; here, the workplace can provide a supportive and motivating site for individual adult learners, thus enhancing their skills and knowledge (Unwin and Fuller: *op. cit.*). We discuss the issue of motivation further below in section 6.

Learning at work: concepts and definitions

Workplace learning is a term open to wide-ranging interpretation. As noted by Lee et al. (*op. cit.*) there is neither a singular definition nor a unified approach to what workplace learning is, what it should comprise, or for whom it is or should be intended. Definitions and terminology related to learning in the workplace vary between studies, including the use of terms such as work-related learning (Streumer, 2006), work-based learning (Avis, 2004) or learning at work (Boud and Garrick, 1999). Boud and Symes (2000: 14) distinguish between work-based learning and workplace learning, stressing that “work-based learning needs to be distinguished from workplace learning, that form of learning that occurs on a day-to-day basis at work as employees acquire new skills or develop new approaches to solving problems. No formal educational recognition normally accrues to such learning, whether or not it is organised systematically.”

Mulholland et al. (2005a) refer to learning that occurs in organisations from the bottom up and without strategic intervention from senior management. Workers learn through experience in and reflection on their work practice; they share ideas and stories between themselves. Mulholland et al. (ibid.) refer to this kind of learning as organisational learning. The Performance and Innovation Unit report (PIU, 2001) uses the term workforce development to denote activities which increase the capacity of individuals to participate effectively in the workforce. However, as Unwin and Fuller (op. cit.: 7) argue, the problem with this definition is that it still focuses on individual employees rather than on the workplace as a whole.

This paper is based on Unwin and Fuller's (ibid.) definition of workplace learning:, which embraces all types of learning generated from or stimulated by the needs of the workplace, including formal on-the-job training, informal learning and work-related off-the-job education and training. Evans et al. (2006) adopted this definition in their formulation of workplace learning as that learning which derives its purpose from the context of employment, that is *learning in, for and through the workplace*. Learning is here perceived as something that "you do continually whilst at work, both out of choice and by necessity" (Gray et al., 2004: vii). Similarly, "most of what we learn takes place at work rather than on formal courses. Work activities, the workplace, the supervisor, other workers ... are the key learning resources for workers" (Malone, 2005: 67). What employees learn as learners-in-the-workplace leads to the development of certain skills or competences, which may be job-specific, occupational or personal development related.

Developing competences in the workplace

Developing competence has become a crucial issue for achieving success in the workplace and has occupied several researchers (for example, Eraut, 1994; Hodkinson, 1995; Oates, 2004). Competence is indisputably a complex concept and can be interpreted in a variety of ways. As Gonczi (1999) notes, the meanings given to competence in everyday life, in vocational education and training settings and in academic settings are quite different. What is more, the meaning is likely to change over time within each of these contexts.

Competence-based education and training: development of competences through national qualification frameworks

Post-compulsory education and training (including WPL) in Ireland and the UK has been largely associated with the concept of CBET (competence-based education and training), with NVQs (National Vocational Qualifications) as the best known example of CBET. NVQs (in England) are work-related, competence-based qualifications; they assess the skills and knowledge people need to do their jobs effectively. They are based on national occupational standards which cover all the main aspects of an occupation, including current best practice, the ability to adapt to

future requirements, and the knowledge and understanding that underpin competent performance. NVQs are modular, work-based and able to recognise prior achievements. They can be introduced into any organisation as a type of workplace learning. NVQs give people the opportunity to demonstrate their competence in their work and thereby to gain formal recognition.

Performance criteria and 'range statements' lend meaning to the elements, units and statements of NVQ competence, which are differentiated into five work-related levels of competence as follows:

- *Level 1: Foundation skills in occupations:* Competence which involves the application of knowledge in the performance of a range of varied work activities, most of which may be routine and predictable.
- *Level 2: Operative or semi-skilled occupations:* Competence which involves the application of knowledge in a significant range of varied work activities, performed in a variety of contexts. Some of these activities are complex or non-routine and there is some individual responsibility or autonomy. Collaboration with others, perhaps through membership of a work group or team, may often be a requirement.
- *Level 3: Technician, craft, skilled and supervisory occupations:* Competences which involves the application of knowledge in a broad range of varied work activities performed in a wide variety of contexts, most of which are complex and non-routine. There is considerable responsibility and autonomy and control or guidance of others is often required.
- *Level 4: Technical and junior management occupations:* Competence which involves the application of knowledge in a broad range of complex, technical or professional work activities performed in a variety of contexts and with a substantial degree of personal responsibility and autonomy. Responsibility for the work of others and the allocation of resources is often present.
- *Level 5: Chartered, professional and senior management occupations:* Competence which involves the application of a range of fundamental principles across a wide and often unpredictable variety of contexts. Very substantial personal autonomy and often significant responsibility for the work of others and for the allocation of substantial resources features strongly, as do personal accountabilities for analysis, diagnosis, design, planning, execution and evaluation.

The structure of NVQs makes two related assumptions: firstly, that competence can be described using explicit and transparent descriptions (which can be used in assessment processes) and secondly, that competence can be broken down into its constituent components, which can then be expressed as individual units (which can be combined in different ways to form specific qualifications; see here Oates, 2004).

CBET has attracted debate and criticism since the introduction of NVQs in the 1990s. Fletcher (1992), for example, observes that the NVQ framework aims to develop a competent workforce through a system of assessment rather than training. Similarly Hodkinson (1995) comments on the preoccupation of competence frameworks with summative assessment, whereas Jessup (1991) suggests that learning should be the central process in NVQ delivery. Furthermore, Tuxworth (1989) describes the notion of competence as inadequate because the competent person may have skills and abilities that are more than the sum of the separate elements of competence.

Classification of competences on the scope or level of aggregation of competence

Oates (op. cit.: 62) suggests the following classification of competences, which essentially comprises distinctions in the scope or level of aggregation of descriptions of competence:

- *Generic competence*: relating to skill components which are not expressed in the form of activities specific to a particular setting, for example, key skills in communication.
- *Occupational competence*: relating to description at the level of an occupation: the description engages with activities at a high level of generality, with the intention that it applies to a wide range of settings and to a wide range of specific ways of completing the activities, for example, a generic description of fault diagnosis in aircraft hydraulic systems.
- *Task-specific competence (independent of specific jobs)*: relating to descriptions which give the detail of the task (for example, constructing lead roofing) but which do not engage with the way that the task might be organised within a specific work system. This level is common in the development of national standards (for qualifications and for quality standards) and implies a hierarchy of sublevels (for example, a standard can relate to inert gas welding or deal with a lower level of aggregation: argon welding to tungsten inert gas welding to oxy-acetylene welding).
- *Job-specific and enterprise-specific competence*: relating to descriptions of the way in which a task is undertaken in a specific work system. This would include job descriptions, work analysis processes, for example, for purposes of pay regulation, of reward systems and of management control.
- *Person-specific competence*: relating to the way the task or job is undertaken by a specific individual within a specific work system. This is important for training, assessment and evaluation purposes; undertaken by workers/learners themselves, it can also form their own contribution to appraisal systems and assessment and in preparing applications for jobs and for training/education programmes.

Oates (*ibid.*) explains that competence emerges as an inferred quality of a set of capacities which allow complex decision making and action in diverse settings. The development of these capacities takes time, immersion in rich learning environments, guided reflection and a complex interaction of theory and practice – both in acquiring and maintaining effective work performance. He argues that this contrasts dramatically with the presentation of competence in NVQs, which, although lengthy and confusing for the uninitiated, are in their elemental structure linguistically simple. This “conveys a superficial atomistic simplicity in respect of work tasks and the development of skilled performance” (Oates, 2004: 68). In his view, whilst highly ambitious in aim, NVQs in practice have been unable to meet their promise and therefore one should be aware of their limitations.

Much UK literature has been devoted to critiquing the assumptions of the dominant versions of competence in UK VET policy (Hyland, 1994; Wolf, 1994). Hyland (*op. cit.*) and Barnett (1994) have pointed out that where competency standards drive curricula, learning content may narrow and the competence perspective emphasises performance and outcomes over knowledge and cognition.

Importance of tacit, transferable and work-related skills and competences

Debate on work-related competences underpins the issue of the importance of developing transferable skills and abilities that people can use in a variety of settings, including workplace settings (see Evans, 2002). Tacit skills and abilities have been perceived as significant in the workplace. In this context, Evans’ research (*ibid.*) develops a model of key competences that has emphasised a broad cluster of abilities coming together in ways that generate growth, movement and future development, which are important in negotiating changes of work and learning environments. These competences are:

- methodological competences;
- competences related to attitudes and values;
- learning competences;
- social and interpersonal competences;
- content-related and practical competences.

The workplace is seen as a primary site for the acquisition and development of work-related competences. Mulholland et al. (2005a) observe that rapid technological development, job mobility and unemployment have had a profound impact on competence development. Employees are expected to acquire their competences not only through formal education and training but also through the real-life setting of their workplaces. In Ireland, the Taskforce on Lifelong Learning (*op. cit.*: 43) confirms that many occupations neither have formal qualifications attached to them nor any formal statement of the knowledge, skills and competences required to perform the

tasks associated with the occupation. Therefore, the issue of developing competences required within the workplace is crucial, as noted earlier.

Researchers suggest that learning at work is more useful, memorable and sustainable than is learning in the classroom, as it is more meaningful and relevant to employees' and business needs:

"We get constant feedback from our actions and the lessons learned from our success and failures can be immediately applied. This contrasts with formal courses where the learning often is not relevant to our needs and the opportunities for application do not take place for some time ... In some specialisations, workplace learning is the only option because the rate of change is so rapid and the number requiring training is so small that it is not feasible to use traditional classroom approaches to training and development." (Malone, 2005: 69)

For the UK, Fuller, Munro and Rainbird (op. cit.: 7) comment on the tensions existing between businesses and employee needs, and thus between formal and workplace learning, in the sense that many believe formal or qualification-based learning (QFL) to be "ritualistic, rote and virtually meaningless", whereas work-based learning (WBL) is "real, relevant and meaningful." They point out that neither position is likely to be whole accurate, but that there is obviously a need for some kind of "transdisciplinarity" between the two stances.

Unwin and Fuller (op. cit.) argue that improvements to schooling alone cannot overcome the low-skills equilibrium as defined by Finegold and Soskice (1988) and that the workplace has to make a bigger and better contribution to closing the UK learning gap. The workplace can and should be a natural site for learning and competence development, capable of motivating people to develop their skills.

However, it is important to note that debate on the benefits of workplace or informal learning does not aim to undermine the importance of formal education (that is, school, college and training centre based learning). As McGivney (2006: 18) concludes, there is no suggestion in these discussions that "informal sources of learning are intrinsically better or of greater importance than formal instruction, but to highlight their value."

Aspects of acquisition and development of work-related skills and competences

A number of studies consider factors that facilitate the development of workplace competences through motivating learners and employers (Malone: op. cit.; Unwin and Fuller: op. cit.; Fuller, Munro and Rainbird, op. cit.; Avis: op. cit.). Drawing this previous research, we distinguish several groups of motivational factors that may stimulate learners towards engaging in workplace learning.

Research studies have identified the following factors are related to learners' motivation for WPL:

- *Previous educational experience:* Bates et al. (2005) confirm that those with the lowest levels of educational attainment are the least likely to participate in work-related education or training. Conversely, Rose (2005: 133) argues that it is reasonable to expect that ostensible competence (as indicated by level of qualification) will necessarily have some effect upon dispositions relevant to work, especially on expectations of work that employees develop independently or adopt from a reference group, and on the structure of intentions they acquire for their own participation in paid work.
- *Previous workplace experiences:* Employees with previous workplace experience feel more confident within their current workplace settings. Research undertaken by Evans et al. (op. cit.) demonstrates the way employees can use their previously acquired skills in their present workplace environments and to what extent this may facilitate their motivation and confidence at work.
- *Age:* Bates et al. (op. cit.) find that older workers, especially those beyond the state retirement age, are the least likely to engage in work-related training.
- *Learners' attitudes and dispositions:* Hodkinson et al. (2004) explore the way individual learner biographies, dispositions and attitudes may facilitate or undermine their motivation and learning success within their workplaces. Malone (op. cit.: 43-4) observes that wishes, needs and desires are grounded in values and feelings, noting that personal interest in the learning topic is linked with finding the learning activity as such rewarding; this exemplifies an intrinsic learning motivation, which corresponds to the desire to meet one's own goals rather than the expectations of others.
- *Family circumstances and financial situation* may facilitate or undermine learners' motivation (Hodkinson et al., op. cit.; Evans et al., op. cit.).

Furthermore, several studies find that a stimulating learning environment in a workplace may considerably facilitate learners' motivation and skills development. In this context the workplace is understood as an environment in which people learn because it provides opportunities for them to (co)-participate in activities and practices (Fuller, Munro and Rainbird, op. cit.: 8). Evans et al. (op. cit.) look at the extent to which employee motivation and competence development at work is influenced by how they experience their working environments.

Fuller and Unwin's (2004) typology of expansive and restrictive workplace environments suggests that workplace environments *experienced as expansive* facilitate further development and deployment of skills whereas environments *experienced as restrictive* are found in workplace settings that do little to encourage

further professional training or development of new skills. Restrictive working environments are also connected with isolation at work when employees have a feeling that they are outsiders or mere observers. Conversely, as the authors observe, expansive workplace settings are often associated with the feeling of being a part of a team at a workplace.

Malone (op. cit.) identifies extrinsic factors related to workplace environment that could reflect expansive or restrictive workplaces, such as fear of redundancy, promotion prospects, managerial pressure and peer competition. He notes, however, that such motivational factors derived from negative pressure may work in the short-term but are unlikely to be effective in the long term.

Learner engagement is a further important benefit associated with a stimulating workplace environment (Evans and Kersh: 2006). Avis (op. cit.) argues that the workplace learning environment may contribute to the re-integration of those who are disaffected and disengaged by focusing on an interest in work. What is more, workplace learning seeks to address the interests of those who, while academically able, feel out of kilter with schooling and are seeking practical experience alongside the acquisition of qualifications which offer progression to higher education (ibid.: 211).

Unwin and Fullers' (op. cit.) research also suggests that the needs of different types of learners should be taken into account and addressed at workplaces. For example, they note that it is crucial for organisations to consider the long-term needs of their younger employees, who need the opportunity to gain qualifications that can help them progress within and beyond their current workplace. Furthermore, sensitivity is required when creating opportunities for those employees who lack basic skills and for those with learning disabilities.

Boud and Garrick (1999: 1) observe that employees are extending their educational capabilities in learning through their work: "opportunities and problems within work are creating the need for new knowledge and understanding. Employees develop skills of expression and communication which spill over into their personal lives. They learn new ways of collaboration and planning which they apply in their families and community organisations to which they belong." Evans et al. (op. cit.) demonstrate that recognition of employees' tacit skills and personal competences may enhance their motivation and further facilitate their learning attitudes and willingness to take on various workplace learning opportunities.

Benefits and motivational factors for employers

Employers derive significant benefits are accrued by investing in workforce development. Boud and Garrick (op. cit.: 1-3) consider that the new focus on learning changes how businesses see themselves, whereas education and training institutions increasingly realise that they must engage in more complex ways with the work-world. They observe that in high-technology knowledge societies operating in

market economies, the nature of work is changing. Knowledge is increasingly regarded as the primary resource, thus giving rise to unprecedented demands for learning that can be delivered flexibly and in authentic work settings.

However, Lee et al. (op. cit.), drawing on research undertaken by Forrester (1999), register the promotion of broader sets of interests: for post-compulsory education and training in Britain, the government's promotion of the contribution of employee learning to competitiveness and the economic well-being of organisations and companies focuses on what are claimed as distinct advantages for individual employees in the sense of facilitating personal development, social learning and active citizenship. This is to be seen in the context of what the British "New Labour" government (from 1997) terms a "modernising consensus", which promotes the reconciliation of the exigencies of market economies with social justice and inclusion through the recognition of knowledge and skill.

Coffield (2000: 16) emphasises in this connection that the "easy talk" of companies becoming learning organisations disguises a basic conflict of interests between employers and employees and between the socially included and excluded: "Companies which downsize, deregulate relocate and outsource will find increasing difficulty in engendering long-term commitment within their workforce. Conversely, for an employee, loyalty to an employer or a firm may prove to be an expensive trap..."

Evans (1995) has discussed the ways in which the concepts of competence and citizenship are interrelated, arguing that these are concepts with minimal and maximal versions and which are often used in contradictory ways in the modernising discourses of UK policy. There is a need to ensure that the versions being used are complementary, not contradictory, with maximal versions of both most suited to advancing the aims of the civilised society.

Recognition/accreditation of workplace learning

Recognition and accreditation of work-related learning may take place in the following ways:

- qualifications within the National Qualifications Framework;
- qualifications outside the national qualification framework (for example, RSA (Royal Society for the encouragement of Arts, Manufactures & Commerce) or City and Guilds; vendor certification à la Microsoft and similar);
- short training courses (not necessarily leading to a qualification);
- publicly-funded work-based training, for example through Modern Apprenticeships (MA) at foundation and advanced levels.

Modern Apprenticeship (MA)

Introduced in 1994, the MA is a government-supported work-based learning (WBL) programme. 16–24-year-olds are currently eligible, but subsequently (DfES, 2003) extended the provisions to those aged 25. Initially for advanced level (Level 3) only, the programme was subsequently differentiated into a foundation level (FMA) leading to NVQ Level 2 and an advanced level (AMA) leading to NVQ Level 3. For the majority of participants, learning takes place both in the workplace and off-site through day or block release at a further education college or with a private training provider, although some apprentices receive no off-the-job training (Stasz et al.: 2004). The revised Modern Apprenticeships are a mixture of work-based training and education, which include achieving an NVQ, acquisition of Key Skills, a technical certificate and occupation-specific elements.

Accreditation of Prior Experiential Learning (APEL)

APEL aims to “improve access to education and training and the awarding of academic, vocational and professional qualifications by recognising that learning is continuous, taking place at work, home and at leisure, as well as in the classroom. The process provides a route for recognising achievements and allows those achievements to contribute. [...]. The AP(E)L process focuses on assessment and certification of the prior learning and experience” (Wilcox and Brown, 2003: 2). It takes into consideration organised study (such as courses and experience at work) or leisure or community activities. Shmyr (2003) adopts the learning continuum as follows:

- *Formal learning*: structured and intentional, achieved through programmes at accredited institutions;
- *Non-formal learning*: intentional through participation in organised workplace training, courses or workshops but without credit;
- *Informal learning*: from life experience, workplace-based learning, volunteering, self-directed learning, hobbies and family responsibilities.

APEL systems award credit for learning made visible, whereby the process by which that learning was achieved is immaterial. APEL is integral to implementing lifelong learning because it is the main mechanism by which learning and skills acquired outside formal education are valued (Colardyn and Bjornavold, 2004).

Conditions for management of workplace learning

Developing competence to create a “smart workforce” leads to further demand for efficient ways to manage training and development in organisations (Sandberg, 2000). However, as noted by Lee et al. (op. cit: 23), until relatively recently most commentators within workplace learning have focused upon the characteristics of learning for individual learners at work. They have paid relatively little attention to the

ways in which organisational structure and workplace context may shape and interact with learning activities. Provision and management of workplace learning is associated with a number of difficulties. As Unwin and Fuller (op. cit.) observe, the main objective of the majority of workplaces is not learning, but much rather the successful delivery of goods or services. Furthermore, “learning plays a vital role in meeting that objective but its contribution is often minimized because learning is a difficult process to separate out from day-to-day activities” (ibid.: 3).

Attempts to identify correlations between training and organisational performance have met with notably meagre success, and this leads to a situation where most employers consider workplace learning to be beneficial, but they do not measure or are unaware of its outcomes; in this context the challenge is to try to persuade employers that investment in workplace learning will contribute to improvement in their business performance (ibid.). The issues related to conditions for management of workplace learning can be summarised as follows:

- difficulty in persuading employers that investing in training or learning offers a return;
- the changing nature of skills and learning;
- difficulties that employers have in recording, measuring and therefore evaluating much informal workplace learning;
- employer need for brokers to raise awareness and support them to undertake and to measure and evaluate workplace learning.

Lee et al. (op. cit.: 28) consider related issues of organisational structure and individual engagement in relation to learning in the workplace through the idea of a complex structure/agency dynamic. They suggest that individual engagement significantly contributes to the construction and operationalisation of organisational structures, whereas these in their turn create the framing conditions for (but do not determine) individual engagement: “In this sense, the organisational structures which will shape and influence learning are not separate entities which ‘bear down’ on individuals but are rather created and continuously re-created through them.”

Fuller and Unwin (op. cit.) also discuss the issue of organisational structures and management, particularly focusing on how learning is shaped through a complex interplay between organisational structures, workplace contexts and different forms of participation across communities of practice. Once more, the concept of the expansive/restrictive continuum is of importance here. Fuller and Unwin analyse the factors which generate an expansive learning environment for apprentices, including: opportunities for both on-and off-the-job learning; knowledge and skill development through participation in multiple communities of practice; access to knowledge-based qualifications; and, finally, a structure for progression. Conversely, a restrictive working environment is associated with a narrow range of on-the-job training; no organisational structure for progression and the gaining of new skills; no access to

knowledge-based qualifications; and, finally, restricted participation within a singular community of practice. Similarly, Evans and Kersh (op. cit) show that engagement in workplace learning is maximised when the learning is well situated in the practical activities of the workplace; in the context and culture of the workplace and in the socio-biographical features of the workers' lives.

Conclusions

This research literature review underpins the importance of theoretical and conceptual development in the area of workplace learning and competence development. We argue that better understanding of various types of interrelations between workplace learning and competence development is required. In addition, motivation and management need to be considered further in the context of the transition to knowledge societies and economies. A stronger focus on the conditions of lifelong learning, the situations of learner-workers and formal versus informal learning is required. In addition, key research themes need to be considered at both micro and macro levels of analysis. Dissemination of research findings is also important.

The literature review shows that in Ireland and the UK, current problems of competence development are closely linked to developing the skills and abilities required by knowledge societies. Employees must, it seems, possess or develop the competences that enable them to perform their work as well as to contribute to their personal development (for example, through development of their communication skills and time management). Without undermining the value of acquiring competences through formal education and training, much research has drawn on the importance of workplace learning in the context of developing work-related competences. The workplace as a site for learning thereby wins increasingly dominance in research related to work-related learning and skills development.

Competence is a complex issue and its understanding varies between contexts. Therefore, context is significant. Future research could address the following questions:

- What are the best ways/techniques to assess competencies such as formative assessment vs. summative assessment?
- What are the competences required to function in the changing workplace? How are they acquired and developed?
- Do competences improve workers' self-efficacy and self-esteem in the workplace?
- Do competences acquired for one occupation transfer to other occupations?
- Do competences contribute to building a learning organisation?

- What competences are required to function in a knowledge society? Do jobs match the competences identified for them?

Workplace learning is an embedded process that depends on and can also shape organisational culture and behaviour. The following research questions present themselves:

- How could learning and competence development be embedded better in the workplace?
- How does competence development contribute to shaping and changing the culture and behaviour of organisations?
- What are the factors that may facilitate the process of embedding learning and competence development in the workplace?
- What is the role and involvement of employers in these processes?

Finally, the role and involvement of employers is an important area for research. From a policy perspective the great challenge is to try and persuade employers that investment in workplace learning will continue to contribute to improvements in their business performance. Therefore, it is important to investigate further the factors that may facilitate employers' investment in workplace learning.

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Company based learning as competence development in Hungary

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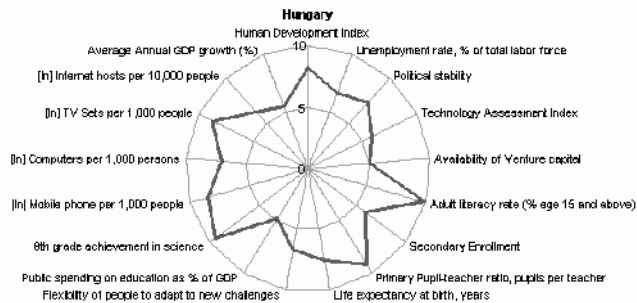
Introduction

Enhancing the adaptability of the workforce for changing economic demands through raising participation in CVET throughout working life contributes to sustainability and social equality. In the context of the Lisbon Strategy, the European Commission's Lifelong Learning Memorandum (2000, followed up by the Communication on Lifelong Learning in 2001) lent stimulus to Hungarian processes of development in this area, not least in drawing greater attention to the importance of non-formal and informal learning at the workplace as well as formal training provision. This explains Hungary's interest in contributing to ASEM-LLL Education and Research Hub activities, specifically by participating in its research network on competence development as workplace learning.

The modernisation of the legal, managerial, organisational and financial framework conditions for implementing lifelong learning is a key priority in Hungary. This reflects the fact that in today's market economies education and training do not end with the completion of compulsory general and vocational education or with gaining an initial education or training qualification. Continuous technological development together with highly competitive markets demand regular participation in continuing vocational education and training (CVET) on the part of employees and all those active in the labour market, which enable and enhance opportunities and capacities for changing employment and occupation and for adapting to changes in work content and processes. In this process the development of new forms of company-based learning provides an instructive topic for research. This chapter provides an overview of relevant features of the current situation in Hungary, reviews recent and relevant Hungarian research and provides case-study examples.

Company-based learning in Hungary: background features

The World Bank's Human Development Indicators Index (HDI) for Hungary suggests an uneven pattern of economic and social development. Whilst initial education and training participation and completion rates stand up well to international comparison, provision of and participation in CVET and company-based learning remain comparatively low.

Figure 1: HDI Knowledge Assessment 2002: Hungary

Source: Benedek (2003)

Figure 1 above shows the so-called Human Development Indicator (HDI), a method used by the World Bank, for Hungary, Western Europe and the G7 countries. Hungary's statistics come very close to those of Western Europe and the G7 in terms of the unemployment rate, expressed as a percentage of the labour force, and the adult literacy rate. This chart is derived from the results of the World Bank Group 2002 Knowledge Assessment.

Hungarian initial vocational training and non formal company-based learning are grounded in the dual system common in central European countries, but do not represent a classical case of this model of provision, since under state socialism's planned economies and highly state-regulated labour markets the vocational education and training (VET) system came under direct governmental control. This had an impact on styles of provision, which did not necessarily reflect company needs and which could not necessarily cater to individual preferences. At the same time, VET pathways enjoyed (and still enjoy) less prestige than those leading to higher education, despite their advantages with respect to learning close to or in real working contexts. Currently, about one-third of Hungarians aged 14 to 17 follow dual-system initial vocational education and training (IVET) pathways, a rate which is comparable to those in Austria, Germany and Switzerland. Traditionally, dual-system IVET is legally regulated by means of an apprenticeship contract between the trainee and the company, as in Austria and Germany; in a modernised form, these arrangements continue today.

However, with the extension of initial training courses and the concomitantly rising importance of general education alongside and within IVET, qualification pathways are expanding and differentiating. This is leading to the emergence of school-based initial training models of provision, which also offer more generic forms of learning and qualification leading to a greater range of occupation and employment options. Hungary's IVET system is therefore moving gradually towards a pattern that is closer

to those of western European countries, in particular France and Italy. Nevertheless, it is too early to speak of an up-to-date, market-oriented, well-defined, adequately financed and school-based VET system in Hungary that is equipped to provide post-compulsory IVET and to meet the level and nature of the demand.

Both at IVET and CVET (continuing vocational education and training) levels, education and training are recognised as tools for positive change management in Hungary's post-transition market economy. International companies that have established subsidiaries in Hungary, especially the big company investors, have been notable for their progressive approaches to creating corporate cultures whose productivity and competitiveness are explicitly linked to continuous learning practices. It is generally recognised that in the future company-based training can play an essential role in improving Hungarian competitiveness, given the key significance of human capital investment for productivity and quality of service in modern high-technology economies. The conceptual frame of company-based training is hence closely connected to the process of continuous development/modernisation and can be located in the management systems' activity.

At the same time, the direct economic environment is an important feature of company-based learning. Available data on the human resource management strategies of international companies in Hungary suggest that approximately 3-5% of annual labour costs are spent each year on training. The comparable figure for Hungarian companies is 1.5% at most. Hungarian companies are typically smaller, rely on different cost structures and display different kinds of organisational cultures in comparison with international companies in Hungary. They are more likely to conform to the characteristics of 'first generation' workplaces and may well increasingly find themselves in the 'second generation' category, but are less likely to be 'third generation' workplaces.

The *Workplace generations* could be described by the following perceptions and conditions:

First generation workplaces

- The illusion of permanence
- Unfixed term contracts
- High specific cost of work and transactions

Second generation workplaces

- Permanent insecurity - increased risk
- Uncertain contract constructions

Third generation workplaces

- Flexibility is a strategic aim and value
- Employment is diversified in space and time
- Variable employment contract system

It is to Hungary's advantage that the corporate sector – more specifically, medium-size and large companies and typically multinational companies – has the training technology and infrastructure required for wide-access e-learning at its disposal. E-learning is currently spreading swiftly in internal corporate education, and its use facilitates not only individualised access to non-formal training but also the tracking of participation and outcome, which makes the identification of training needs together with future planning easier.

Research on company-based learning

Company-based learning is the main organisational setting in which lifelong learning takes place once people have left compulsory education and training, whereby the extent to which the knowledge thus acquired is capable of 'work-force centric' adaptation and application is crucial to its effectiveness (Zachár: 1999). Analyses of company-based learning can be undertaken from a variety of disciplinary standpoints: labour economics would focus on employment-related issues, organisational sociology could look at corporate learning cultures and educational science may consider adult learning styles or methods. In effect, disciplinary perspectives tend to uncover different and potentially complementary dimensions of understanding company-based learning and its effects for individuals, companies and economies. Viszt (2003) draws attention to two key elements of all the research at hand: firstly, there is a strong relationship between organisational culture and workforce development, and secondly, significant differences in the extent and nature of company-based learning emerge between industrial/occupational sectors.

Szabó and Császár's (2004) research review for the period 1980-2002 shows that 1980s' company-based education and training was not always primarily anchored in company human resource development strategies. This link appears evident today, but in the pre-transformation of the 1980s far less so. Rather, it was the task of the state-run VET system to deliver appropriately qualified and competent personnel into employment and the productive sector. Companies and workplaces did not expect to provide CVET, directly or indirectly, and in general they neither did so to a great extent nor did they systematically consider how workplace learning might be taking place and how to draw advantage from it. Nevertheless, interest in company-based learning did find a home in sectoral associations, craft trades associations, the employers' federation and in particular within the framework of the Hungarian Chamber of Commerce and Industry. This organisation has a growing role regarding the curriculum development of different professions. In the new NVQS (National

Vocational Qualifications System) there are more professions which enjoy the supervision of the Chamber than before.

Hungarian research into company-based learning from an adult education perspective is dispersed. Before 2002, no permanent research institute devoted specifically to adult education existed in Hungary. Instead, relevant topics were dealt with through the National Institute for Public Education and the Institute of Higher Education Research (formerly the Institute for Educational Research) together with university-based research in Budapest, Pécs and Debrecen. In addition, the field of adult education – whilst currently undergoing rapid change – is traditionally closely associated with the field of general education rather than with vocational education and training, so that company-based learning is not an immediately obvious theme for adult educationalists.

Adult education research in company settings during the 1960s and 1970s was more interested in the educational experiences that employees brought with them (that is, from schooling and from other external contexts) than in what they might be learning in the workplace itself. In the early 1990s, research interest understandably turned to the role of education and training in relation to the potential for reducing unemployment and combating social disadvantage. Analyses with a specific focus on company-based training have only begun to appear since the late 1990s, yet these are still more likely to come from the field of adult education than from organisational sociology, management studies or labour market research – though interdisciplinary approaches are now becoming more frequent. Amongst others, the following scholars have done some pieces of work on the above mentioned themes: András Benedek (Benedek 1995), Dénes Koltai (Koltai 2005), István Polónyi (2003), Anikó Fehérvári (2000) and Zoltán Györgyi (2002).

The establishment of the Institute for Adult Education in 2002 has lent decisive impetus. Its researchers have already carried out 22 funded projects and it now leads the Hungarian adult education field - but only one of these projects deals with company-based learning, and that only relatively indirectly (Dávid 2005). This research investigates the relationship between the skills needed on the labour market and the VET system. Csizmadia (2005) points out that studies to date mainly focus on macro-level training supply and demand issues, whereas few look at human resource development demands at company level. In general, the available body of research demonstrates little coherence and cumulative quality.

Under the auspices of the National Institute of Vocational Education, our own research (Azizi, Erdei and Wiederman, 2003) has looked at company-based learning in three Hungarian regions in the period 2001-2003. This survey focused on the three production and two service sectors that – in terms of profitability, employment and so on – are dominant in each of the regions, whose economies and learning cultures also vary. An extensive questionnaire was used and we have asked 250 companies in each region. The results indicate that 'learning by doing' in the workplace is the

most significant kind of learning for employees. This is most particularly so for those in low-qualified, low-status jobs, but at the same time it accounts for almost half the learning reported by higher-level employees. Skilled workers in the finance sector and middle managers are most likely to participate in organised company training. Top-level managers are least likely to do so. Instead, they are more likely to participate in continuing professional training provided externally. Regionally, informal workplace learning is most widespread in the North Plains region, which in economic terms counts as a less well-developed part of Hungary. Participation in organised company training is higher in the Trans-Danubian and South Plains regions, at least for the better-qualified and those in higher-status positions.

Overall, the surveyed companies do not judge company-based learning (however this might take place) as the most important factor for raising productivity and competitiveness, although they register human resource development needs amongst their workforces – most particularly in the case of professional knowledge, communication skills and creative capacity. Ultimately, the regional differences in training provision, volume and distribution derive from the structural profile of the regional economy and its employment features. In other words, the differences depend on company size, sector of operation, specific product market and management structure. These findings are, of course, comparable with those throughout Europe.

Company-based training strategies: four examples

The four examples below represent company-based training as expressed in different ‘workplace generations’ (see further above). The Hungarian Railways Company (MÁV) represents a first generation workplace with a low level of capacity to adapt to change; the company training strategy is directed to ensuring continuity within established company-specific occupational functions. Paks Nuclear Power Plant, on the other hand, constitutes a third-generation workplace with a high-quality company training strategy generated in the first instance by the demands of safety. KPMG-BME Academy and SAP Hungary are differently structured examples of third-generation workplace training services in multinational company settings, which are based on the principles of knowledge management.

The *Hungarian State Railways (MÁV)* company was founded some 150 years ago and over the course of its history has experienced fluctuating levels of state subsidy. Despite significant reductions in recent years it remains, with around 8 000 staff, one of the largest enterprises in Hungary in terms of employee numbers. Its training strategy relies on company-based and job-specific courses that relate primarily to the internal occupational structure of trades and levels; these are formally-organised and employ conventional didactics. Table 1 (next page) shows that in 2004, 77% of all participants attended such training courses: 47% for directly company-specific qualifications and a further 30% in a range of directly company-relevant further

education courses. The remaining 23% took part in computer/IT courses, which at least in principle could be regarded as delivering generic competences transferable to other companies and workplaces. However, these kinds of courses made up 31% of the courses offered by MÁV to its employees, which also suggests that employees are not taking up the opportunity to acquire more generic competences as much as they might – or alternatively, that they are not necessarily encouraged to do so by their supervisors. The MÁV company-based training system seems already large but its content and the applied training methods remained traditional.

Table 1: MÁV company-based training courses, 2004

Type of courses	Number of participants	Number of courses
Railway Trades Advanced Course	933	28
Railway Trades Intermediate Course	1 539	55
Railway Trades Elementary Course	274	13
Job-specific and functional Advanced Course	408	8
Job-specific and functional Intermediate Course	1	44
Job-specific and functional Elementary Course	165	6
National Qualification Register Advanced Course	81	3
National Qualification Register Intermediate Course	207	8
National Qualification Register Elementary Course	115	5
Further Education (EU, business line, change of technology, MÁV studies, etc.)	2 328	24
Trainings	35	2
Computer Studies	1 199	44
Other Professional IT Trainings	582	45
Total	7 867	285

Source: BME Institute of Applied Pedagogy and Psychology, Budapest, 2006.

Employees at Paks Nuclear Power Plant can follow basic and advanced job-related training courses on site at the power plant or at universities and research institutes. Formal certification is mandatory for those working in operation and maintenance, manufacturing and quality control functions. They must be specifically licensed in order to carry out these jobs and must renew their license biannually. Since 1989, the plant also hosts a block simulator (developed jointly by Hungary and Finland), which ensures the capacity to provide up-to-date and continuous employee training in a simulated 'real-life' situation parallel to the everyday work situation.

With the financial and professional support of the International Atomic Energy Agency, the second half of the 1990s saw a major initiative at Paks to upgrade company training policy and practice, which is today regarded as amongst the leading examples of good practice worldwide for the nuclear energy sector. A nuclear energy plant is a workplace where learning on the job cannot allow mistakes, so that informal learning in the real workplace has to be closely regulated and supervised. The good practice features at Paks – as a third-generation workplace that relies primarily on well-organised formal company-based training – are the following:

- Mandatory training and licensing of all personnel
- Purpose-built and high-quality company training centre
- Sophisticated simulation training environment equipped with driving- edge technology
- High quality trainers on full-time posts plus invited experts
- Systematic and continuous training the trainers strategy (technology and pedagogy)
- Low incidence of maintenance problems
- High levels of efficiency in production
- Reduced employee exposure to radiation (optimal workflow practices)

(Source: BME Institute of Applied Pedagogy and Psychology, Budapest, 2006.)

Established in 2001, KPMG-BME Academy is a global network made up of finance sector companies (auditors, taxation advice, etc.) and the Budapest University of Technology and Economics. It provides high-quality further professional education (at the university or on-site) for the network members' employees and clients, and it monitors current training needs in the sector in order to develop tailor-made programmes. Companies operating in highly competitive markets must generally develop focused survival strategies, which typically mean concentrating on developing high-level expertise and specialised competence for a key product or service. This intellectual capital requires continuous investment for its sustainability, leading to company knowledge management strategies in which training as professional development plays a central role for learning how to map out, apply and extend corporate knowledge. To date, experience with these training programmes

indicates that middle-level and top-level managers and experts do need to exchange their reflections deriving from their practical experience, and also to share up-to-date information and knowledge in practice-oriented small groups. The courses are designed accordingly and have become very popular.

SAP is a multinational with company operations in 120 countries, including Hungary. SAP is the global market leader for delivering the full spectrum of business software solutions for companies of all sizes and across a wide range of sectors. Since 1998, SAP Hungary's training centre has provided multiple-level standard and tailor-made courses for its client companies. It also offers customised on-site training at individual company workplaces. Its 'learning solutions' use conventional, blended and wholly virtual methods and a dedicated search engine provides individual employees using SAP software with direct access to customised training course offers. Although the SAP Learning Solutions could be seen as an example of greater opportunities for non-formal and self-directed learning that individual employees can access by themselves, the traditional companies' motivation for implementing this learning approach seems extremely low recently.

Conclusion

Workplace learning as competence development appears in very diverse ways in Hungary. The different workplace generations create rather different skills and human resource needs and at the same time learning needs. Learning needs were met in a totally different way before 1990. The centralised CVET served the planned economy. After 1990, this centralisation has disappeared giving space to the market economy. In this situation, the CVET policy of a company mainly belongs to the company itself. The CVET policy of an organisation mostly depends on the used technology, the market situation, the wish of consumers etc. Therefore, the training and learning needs show strong dependence on it.

According to Hungarian companies, training and learning is crucial for their survival. However, the overall position of CVET is much further behind other factors of economic development. We can experience a continuously growing importance of CVET in companies, but the planning of WPL is less professional than it should be. At the same time, WPL is an increasingly important pillar of LLL making research and development necessary.

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