Technology and business needs shape training and learning

POLICY BRIEF
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TECHNOLOGY AND BUSINESS NEEDS SHAPE TRAINING AND LEARNING

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Introduction

What are the ‘drivers’ for lifelong learning in companies?

Is work-related lifelong learning always a response to business needs? Does this mean job-specific skills are always favoured, with less interest in generic skills? Or do companies’ business environments, or skill requirements, determine their preference for particular modes of learning?

The need for “employability” suggests individuals are personally responsible for ensuring they are well-qualified for work. But the EU and national governments also know that developing a well-educated, skilled and adaptable workforce enhances business and national competiveness.

Do companies fail to invest in skills because trained staff may be recruited by other employers? This has often been seen as a risk by policy-makers and economists.

Do companies and workers see a common interest in promoting lifelong learning?

Key Observations

Technology and business needs shape what skills companies need and what kinds of training they prefer

Where high skill requirements and technologically advanced output shapes the approach to lifelong learning in companies, there is a preference for informal learning (e.g., project-driven learning, “on-the-job” training, mentorship). In our research, this goes together with the absence of structured HR (human resources) management. Public policy exercises little influence in engagement in informal learning within companies.

It is often business needs (sales, product development, efficiency, etc.) that drive selection of outsourced training. In this respect, “knowledge-intensive” companies reported difficulties in finding appropriate training: in our research, this was reported by all companies in the IT sector and by a small management consulting company. This was not perceived as a « difficulty » but as a consequence of the nature of their work where self-learning and peer learning are seen as the best sources of lifelong learning.
Problem solving is not always the most relevant skill

They saw the knowledge they generated as more specialised and ‘cutting-edge’ than that transmitted by public higher education institutions and private training providers.

Problem solving is not the most valuable skill in every sector. This is relevant for adjusting public policy programmes and training provision to meet learning needs in both public and private sectors.

What to learn and how to learn are strongly influenced by the dynamics of the professional field and its reliance on authoritative sources of knowledge. For example, Architecture, Management Consulting and IT have are based on the ability to create new products and/or to innovate. In these sectors, most staff is highly qualified and learns autonomously (e.g., by self-study or peer-to-peer learning). In Health Care, while individual autonomy may be strong among some groups (e.g., doctors), job performance is often strongly linked to meeting learning needs linked to developments in other fields (e.g., medicine research, pharmaceutical production).

As one management consultant told us:

“For the job we do here, training does not always mean a formal course with defined hours and in a defined place. No! It is many times triggered by new information that requires reading, search on Internet, talking to other colleagues, going to certain conferences and talks. For all of this, one has to have personal initiative.”

Companies that employ highly-qualified professionals and develop project- and research-based products and services invest less in training courses and rely more on individuals’ autonomous initiative to meet their learning needs. What primarily induces lifelong learning in these companies is the engagement of individuals in doing their jobs. In such situations, lifelong learning is constitutes part of normal work, rather than an additional or complementary professional development activity. For example, a software developer said:
“If you develop a technology normally you also develop the employees, but the focus and the starting point is always the technology development [...] It’s like lifelong learning [...] There is a new technology, there is not enough qualification resources from the manufacturers of the technology, so I have to train myself in C2 for using this technology to be better than the competition of C2 in using this technology.”

When a HR function exists to deal specifically with training needs, we found HR is strategically driven. One large company had its own lifelong learning policy and included up skilling opportunities in the normal course of working life. It valued lifelong learning not only for job-specific or demand-driven purposes, but also for retaining experienced staff and maintaining a good working environment.

Companies which have their own HR policies facilitate similar types of lifelong learning opportunities to those promoted via legal instruments and collective agreements. HR policy plays a role in facilitating and valuing informal learning through, for example, making participation in formal learning optional, and through encouraging appropriate (e.g., team and project-based) forms of work organisation.

Regulation and legislation can play a valuable part in encouraging training, and in helping to ensure managerial implementation of training plans. (The evidence for this varied across professions and countries.)

Legislation and collective agreements are elements in public policy environments, which encourage or force individual enterprises to invest in more costly and structured types of lifelong learning.

However, although such measures can lead to the adoption of particular HR management practices, the regular setting of training programmes based on assessment of business and individual employees’ learning needs, the existence of a HR professional development policy within the company cannot be assumed.

HR is valuable in meeting training needs, but often has a limited impact on informal learning.
Public policy is less significant when a developed company HR function deals specifically, and in a strategic way, with training needs, professional development and lifelong learning.

In workplaces where innovative problem solving is less important, lifelong learning is nevertheless valued. However, in such situations, a focus on enhancing problem solving skills may not be valuable.

Although training was widely valued among all companies we investigated, there was variation in companies’ preferences for modes of learning (non-formal, informal and formal).

Among “low-skilled” staff, the quality of the training provided, and in particular training methods used, are important in motivating trainees and in making training opportunities effective.

We found no evidence of companies failing to invest in skills because they feared trained staff would be “poached.” Employers and company managers seemed not to fear having to pay for “extra” training because the company would ignore their learning needs.

In fact, enterprise owners, managers and employees all told us that continuing education and training is mutually beneficial for all – that it contributes to “what needs to be done for doing the job,” “personal development” and “creating a good work environment; a kind of employment benefit for all employees.”

**Recommendations for Policy-Makers**

**Up skilling should be a key feature of working life**

EU and national governments should encourage companies – especially large companies – to recognise that up skilling should be a feature throughout working life, and implement measures.

**Invest in training trainers**

Investment in training trainers should remain a key priority. It is clear that training methodologies need to be tailored for the particular nature of the learners.
Professional associations should take a more active role in training trainers.

Problem solving skills development may not be valuable in all sectors. The kinds of learning of value in a workplace, and seen as worthwhile by those who work there, are affected by the service or product supplied.

The various factors that drive lifelong learning in companies remain only partially understood. More research is needed to investigate these. Research is also needed to identify gaps in learning when the focus of lifelong learning is product-driven or business-driven. Such research will increase efficiency in the allocation of funding for lifelong learning. For instance, sectorial analysis could differentiate the relative value of kinds of learning in accordance with service/product provided and the professional knowledge and skills required.

Research Parameters

The policy trail method involves combining analysis of national legislation and policy initiatives with the results of case study research in and around enterprises. Fourteen case studies were conducted, involving interviews with samples of managers, workers and policy actors, and analysis of company documents. The enterprises were located in Germany (7), Spain (4), Denmark (1), Italy (1) and Slovakia (1). Of the enterprises, five had over 250 employees, five between 50 and 250 employees, and four fewer than 50 (including one with fewer than 10).
LLight’in’Europe is an FP7 research project supported by the European Union, which has investigated the relevance and impact of lifelong learning and 21st century skills on innovation, productivity and employability. Against the background of increasingly complex tasks and jobs, understanding which skills impact individuals and organizations, and how such skills can be supported, has important policy implications. LLight’in’Europe pioneered the use of an instrument to test complex problem solving skills of adults in their work environment. This allowed for the first time insights into the development of professional and learning paths of employed individuals and entrepreneurs and the role that problem solving skills play. Additionally, LLight’in’Europe draws on a series of databases on adult competences from across the world to conduct rich analyses of skills and their impact.

These analyses were conducted in concert with different disciplines. Economists have been analyzing the impact of cognitive skills on wages and growth; sociologists have been investigating how public policies can support the development of such skills and lifelong learning; innovation researchers have been tracking the relationships between problem solving skills, lifelong learning and entrepreneurship at the organizational level; educational scientists have investigated how successful enterprises support their workforce’s competences; cognitive psychologists have researched on the development and implications of cognitive skills relevant for modern occupations and tasks; and an analysis from the perspective of business ethics has clarified the role and scope of employers’ responsibility in fostering skills acquisition in their workforce. The team has carried out its research and analyses on the value of skills and lifelong learning in EU countries, USA, China, Latin America and Africa.

The result is a multi-disciplinary analysis of the process of adult learning and problem solving in its different nuances, and of the levers which can support the development of these skills for both those who are already in jobs, and for those who are (re)entering the labor market, as well as the development of effective HR strategies and public policy schemes to support them.
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This policy brief is part of the publication suite of the FP7 Project LLLight’in’Europe. The publication suite consists of 21 policy briefs, 6 thematic reports and 1 synthesis report. The 21 policy briefs discuss findings and policy implications proceeding from the project’s research; they are organized along three level of analyses (persons; enterprise; country) and seven topics.

01 Resources of society for learning

02 Institutions of learning

03 Circumstances of learning

04 Role of transversal skills

05 Role of job-specific skills

06 Productivity of skills

07 Outcomes of skills

This policy brief discusses findings related to Circumstances of learning at the analysis level country. For further publications and multimedia material related to the project, please visit www.lllightineurope.com