

# LEARNING TO BUILD AN INNOVATIVE WORK CULTURE AND WORKING ENVIRONMENTS

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## Abstract

*Working environments will suffer significant changes with the introduction of new technologies, materials and work processes. New designs for the working environment and a work culture supporting creativity and innovation in companies are required. Learning for creativity and innovation in organizations is often a slow process based on iterative cycles of experimentation. Lack of knowledge, skills and resources particularly in small and medium sized companies (SMEs) are often the cause of inability to innovate and/or to change modes of work. In this paper the issues linking work culture and environments are presented. Two learning approaches, which support the building of an innovative work culture and new working environments are discussed, viz. action learning and informal, cooperative learning in Communities of Practice (CoP), both supported by eLearning. Illustrative examples are given of these approaches being applied in SMEs.*

**Key words:** *action learning, CoP, informal learning, SME, work culture, working environments.*

## Introduction

Social and economic change processes, global business evolution, technological innovation and crises such as the current world economic recession, deeply affect the situation of companies and demand innovative approaches. In response working environments will continue to undergo significantly change with the introduction of new technologies, materials and *work* processes. New designs for the working environments are required and new forms of cooperation and learning in, and between, companies are also needed. Workplace design supporting new work modes in the knowledge economy plays an important role in the business performance of a company.

But how can companies develop a work culture and environments that support creativity and innovation? Learning for creativity and innovation in organizations is often a slow process based on iterative cycles of experimentation. Lack of knowledge, skills and resources particularly in small and medium sized companies (SMEs) are often the cause of lack of innovation and adoption of better modes of work.

However, to support innovation in the transition to a new paradigm of continuous change driven by global information exchange and rapid renewal of knowledge, learning has to be looked at in a different, more comprehensive and integrated way than has been the case so far. Results from the Gensler (2008) Workplace Study (<http://www.gensler.com/>) show that top-performing companies are embracing a fundamental restructuring of work through workplace design that is based not primarily on individual „heads down” work but on collaboration in learning and socialization. Action learning continues to be used to develop individual work skills but it is also undertaken to effect broader organizational change.

In this paper, some issues related to learning for an innovative work culture and design of new working environments are given.

Two learning approaches: action learning and learning in Communities of Practice (CoP) by using eLearning are presented in order to build such an innovative work culture and new working environments. Examples are given within learning approaches for SMEs.

### **Innovative Work Culture and Working Environments**

„Predicting the shape and character of the workplace of the future is a messy and difficult business. Despite the ubiquity of some trends, and the convergence of at least some practices, workplace will continue to be extremely diverse” (Hall, 2006).

The problem to be solved relates to the design of the working environments we wish to be economically effective, human-oriented, conducive to innovation and sustainable.

Workplace design has to take into account the demands of key trends in the workplace changes such as the following, as identified by Hall and discussed by other authors:

- Work intensification (Watson et al., 2003) determined by intensified competition as a consequence of globalization, demands on all organizations to achieve greater productivity, etc.
- Labour working time flexibility (day, month, year),
- Increasingly disciplined management of labour and creating opportunity for autonomy and creativity.
- In order to understand future demands for skills and to develop learning concepts for achieving these skills it is important to understand the underlying factors influencing and supporting them.
- Some expected results of these trends are:
- Changing of organizational structures to support new methods of work and collaboration,
- Measures for flexible work arrangements to support project work, which are socially equitable,
- Work settings that support present and future dynamic ways of working,
- Demand for knowledge workers,
- Cultural aspects of the work environments that either stimulate or suppress innovative thinking,
- Variables that affect the building of a work culture of creativity and innovation and outcomes that characterize a such a culture,
- Forms of learning for creativity and innovation in organisations such as action learning.
- Emergence of organisational and social networks such as CoPs that support knowledge sharing and learning for working.

Culture of innovation that supports continuous learning, reasonable risk taking and experimentation and motivates people to align themselves with a vision without being rigidly controlled, so that new ideas are generated and flow across boundaries within the organisation.

Burke & Litwin (1992) distinguish two kinds of variables that influence organisational change:

- Transformational variables that are affected when a company interacts with external environments so that changes in organisation strategy, mission, culture are initiated
- Transactional variables at the level of the work climate such as management practices, skills, motivation, and needs.

Key to transformational change is „advertisement” to changes in the environment i.e. in customer preferences, new technologies and changes in policy markets. The strategy should respond to such changes and support people and organisation to channel innovation to common goals. A creative and innovative work culture provides opportunities for people to work together and use also their diverse views and experience. (Marsick & Watkins, 2001). Keys at transactional level are supervisors who offer socio-emotional support, set clear goals and communicate often. New information and communication technologies (ICT) enable people in different parts of the organisation to interact and share knowledge and opinions.

How can be transformational and transactional variables be changed to build innovative work culture?

Marsick (2001) affirms that action learning programmes are suited to the use of project work to effect transactional changes that in turn can build transformational culture change.

### **Action Learning to Build an Innovative Work Culture**

The concept of action learning is close to learning by doing and experimentation; the learners study their own actions. R. Revans is the originator of action learning, inventing this method in 1940, and encouraging managers to work in small groups, share knowledge and ask each other questions.

„People had to be aware of their lack of relevant knowledge and be prepared to explore the area of their ignorance with suitable questions and help from other people in similar positions” (Revans, 1980).

R Halle ([www.richardhaleassociates.com](http://www.richardhaleassociates.com)) continues the research based on contributions of Revans; they developed together a new approach for leaders, education which is recognised in many countries particularly in the UK. Practitioners under the guidance of Rohlin (2002) have built on Revan`s pioneering work „the MiL model” using an adapted branch of action learning – action reflection learning. In an experiential learning model, MiL practitioners varied the number and duration of the sessions, the type of project selected, the role of a project advisor (later called Learning Coach) and the style of their interventions.

Nowadays companies from many countries recognized the critical importance of action learning and use it in their leadership development programs. Learning for innovation is typically combined with work and is often informal. A Study by Gephart & Marsick (2003) shows that transformation to a culture of creativity and innovation takes place over time through iterative cycles of experimentation that involves a new vision setting, strategy changing, modelling new behaviours of leaders, changing features of culture, new work practices and processes, continuous learning through the organisation.

Companies like PepsiCo and Cisco used action learning programmes to develop talent and build a culture of creativity and innovation in their organisation. We have used action learning with two SMEs from Romania (see part Examples and further activities).

Innovation can be build by using issues of action learning: strategic/critical/ divergent thinking, and a flexible learning orientation. Participants for the learning programmes should be selected who have potential for creativity, divergent thinking, and innovation as individuals and also as a group. Projects should be used to push the culture toward innovation. The projects should be chosen/developed so that the participants can develop their ideas by understanding external environments, can experiment in project group and then extent it into the organisation. Learning should support deep questioning of the status quo.

Kuhn & Marsick (2005) underline that an innovative work culture can be built only to the extent the leaders are willing to evaluate project results and support changes proposed through the programme.

There are different kinds of action learning programmes: some promote valuable tacit knowledge within existing cultural frameworks, other focus on scientific project work or personal development.

The tension between new and old ways of working in action learning programmes help to introduce individuals and organisations to new practices. It is important that the action learning teams do not move too far from the tolerance level for change of the organisation. The action learning teams should be supported in their activities to challenge a work culture supporting creativity and innovation in the organisation.

### **Informal Learning in Communities of Practice**

The social, economical and technological changes that foster competence development in connection with new working environments and an innovative work culture require a new concept of relations between learning and education with an increased focus on knowledge sharing and informal learning possibilities (Cross, 2006) outside educational institutions, fostering cooperation and using new technologies. Informal learning is not necessarily professionally organized and/or follows a specified curriculum and it is experienced directly in the normal function of everyday life.

Results of studies and projects (see ARIEL [www.ariel-eu.net](http://www.ariel-eu.net) and SIMPEL <http://www.simpel-net.eu>) coordinated by the authors show that the preference of SMEs will go not for formal training but for more informal, in-house at the workplace training (Hall & Hamburg, 2008). They use also visits to expos/trade fairs, conferences, reading of professional literature, etc to improve their competencies and resort to the training market only when they need to obtain skills that can not be provided in house. „Informal” is a positive way to regard learning, a central aspect of the socio-cultural learning. Results of studies (Atwell et al., 2003) show that most informal learning appeared to be learner driven not planned together with colleagues in the company (Boud & Middleton, 2003). The learners were motivated to learn also for new working environments although managers do not supported them because they do not perceive shortage of ICT skills and other skills for the future work.

Social networks such as communities of practice (CoPs) (Wenger, 1998) are favourable environments for informal learning. CoPs consist of voluntary members who share knowledge, ideas and interests, mentor each other; they offer new opportunities for knowledge management and learning processes by using new forms of interaction of teamwork and loose contact between the actors. Through active participation newcomers are oriented into the skills and culture of the practice and experienced practitioners get new insights into their work practices. The motivation of the CoP members to participate also includes desire to take up opportunities to learn new skills and work practices. They are connected with colleges, their work and geographic determined isolation can be reduced

At present most European SMEs act alone in facing their training problems (Hamburg et al., 2008). It seems to be a successful suitable solution for SMEs to build communities of practice to share knowledge, to apply best practices in designing workplaces and to develop business-oriented models of training. Such forms of co-operation would stimulate new experiments; new actions and new directions for learning, and especially absorb the kind of informal learning most SMEs already have experience with, such as in-company apprenticeships, induction training for new employees and practical demonstrations or instruction on new equipment.

New developments in ICT support the improvement and networking of centres for acquiring knowledge by interconnecting virtual spaces and campuses, the networking of universities, training centres and cultural resource centres. This kind of social and technical networking favours exchange of experience, of good practices in education and continuing education and

helps improve these processes in many European countries. They open broad avenues for building CoPs, not only within companies, but also especially across companies and other organizations.

An important aspect is collaboration on the basis of Web 2.0 applications and methods. On the one hand these seem to be very promising for their ease of access and their profound social orientation. On the other hand, it is not yet entirely clear, which Web 2.0 applications are specifically suitable for the purposes of CoPs for SMEs. Evidently, Wikis and forums are very useful for creating knowledge bases cooperatively or for discussion. It is less evident how to use big social networks such as Facebook, Twitter or Second Life profitably. Currently research is underway by the Fraunhofer Institute in Germany and the Agency Cosmo Code to look into the use of Web 2.0 in manufacturing SMEs (<http://idw-online.de/pages/de/news317471>).

In designing learning projects or CoPs or any other project to manage change, the specific constraints of SMEs have always to be taken into account. Learning, communication and many other activities are much more short-term oriented in SMEs than in big companies- But the exchange of content, organizational and infrastructural aspects depend on several criteria such as number of employees, complexity of organizational structure, availability of competences, enterprise culture and much more. The most crucial aspect, however, is the readiness of management to invest in long-term innovation. This one aspect overrides all others. This is the pivot, the one aspect in which SMEs need the most help. It seems useful, therefore, to create across sector CoPs precisely on this issue.

### **Examples and Further Activities**

We used action learning in a training programme with leaders of the University Craiova and of the SME TOP ART Srl. Craiova Romania. For the University self-managed action learning by using eLearning has been organized aimed at a innovative project work culture. The medium-sized company is managed by one of the authors of the paper. As a result of action learning over 50 new ideas have been produced. The leader of the company is content because some barriers within the company between the management and the staff have been reduced. The company started a 3 years innovation programme in surface scanning based on the ideas developed within the action learning programme.

We applied the CoPs ideas in some of the activities of the EU project SIMPEL to test the suitability of a CoP structure based on Web 2.0 methods as an intensive knowledge and learning environment (Beer et al., 2008). In the CoP we developed strategies to enable SMEs to take advantage of eLearning in their training.

In a European CoP an „innovative and optimal vocational training model” for SMEs based on eLearning was developed. This uses best practice for capturing and sharing knowledge and for using eLearning collected by the CoP members. Guidelines for using the training model have been written. This CoP attracted sectors engaged in support, training, design/development use, in consulting and in policy formulation concerning E-Learning in SMEs in the European Union. In order to train SMEs to make more use of Web 2.0 for sharing and acquiring knowledge and for improving the interactions with their customers it is intended to increase the activities of this CoP with tutorials including Web usability guidelines for SMEs.

The ongoing German CoP will focus particularly on analysis and testing formal, cooperative learning, oriented to the design and use of new working environments in SMEs by acting in CoPs (Garrick, 1998; Hall & Hamburg, 2008). This CoP has permanent members who make regular contributions but also occasional members who use the information and knowledge needed for their work and business and sometimes contribute. For the future it is intended to encourage more SME to participate and to use the knowledge and resources developed within the CoPs. The virtual activities of the Cops have been supported by Moodle (Dougiamas, 2004). The two Cops will extend their activities and members.

Further activities of the authors are aimed at the development of learning strategies under the using of Web applications and knowledge intensive procedures particularly for SME staff to be able to build innovative working environments and a work culture.

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