

Resisting Time Pressure – Work-Integrated Learning Facing Individual Challenges in Knowledge-Based Economies

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Abstract

The contemporary economic and working environment is more complex and turbulent than ever before. On the one hand, enterprises have to prevail on turbulent and fast changing global markets. On the other hand, the traditional model of the regular employee was substituted by dynamic biographies. Nowadays, individuals need to refresh their knowledge and modify their skills constantly and for a long working life while organizations have to use efficient instruments for the flexible transfer of work-related knowledge. These enhanced requirements of individual qualification and competency development conflict with the increasing time pressure of the economic and everyday life.

The article firstly analyzes lifelong learning and continuous competency development as essential requirements in a modern working environment. The socioeconomic dilemma *Time for Learning Processes vs. Time Pressure*, however, shows that the tightened conditions of today's economy the fulfilment of these requirements can only be obtained by innovative forms of work-integrated learning. Based on these results the article finally describes the concept of Microtraining as one example for an efficient method of work-integrated learning and powerful measures to face the dilemma described.

Key Words: Modern working environment, knowledge-based economy, individual challenges, lifelong learning, socioeconomic dilemma, time pressure, work-integrated learning, microtraining.

1. Organizational and Individual Challenges in a Modern Working Environment

In the past two decades, all modern societies have experienced profound changes in socioeconomic terms and went through far-reaching processes of change both in economical and social structures.¹ With regard to the velocity of change, the complexity of structures and the dynamic of

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processes, it is uncontested that today's socioeconomic environment is more turbulent than ever before.²

This growing *dynamixity* is connected with incisive changes of the occupational distribution within a modern working environment.³ With the development to a service-oriented (tertiarization) and knowledge-processing (quartiarization) economy human potential advances to be one of the most essential factors for added value and competitive ability.⁴ Accompanied by the tightening of demographic change and the increasing lack of skilled workers, intellectual capital and intangible assets will more and more surpass the value of any other resource.⁵

Against the background of today's dynamixity in a service and knowledge-based society organizations have to face various challenges to be sustainably successful. One of the most decisive challenges as a result of the speeding up of technical and social changes is the steady pressure to innovate. So an organization's ability to assert itself on the global market is more and more based on the capability to innovate.⁶ As human knowledge, creativeness and the ability to originate are decisive preconditions of innovations, the organizational handling of human potential and intellectual capital becomes crucial:

‘It is really quite simple. Innovative organizations are places with innovative people. The strategy question has to be: ‘How do we develop the capacity to innovate residing in our employees?’⁷

To sum it up: In the complex and dynamic markets of today's economy the knowledge and skills of the employees gain in essential importance for the innovative and competitive capability of organizations.⁸ Thus, the strategic development of employees' knowledge and skills is a decisive investment in the intangible assets as the most valuable resources of companies in service and knowledge-based societies. Individual learning advances from an organizational cost factor to a key factor for the capability to innovate and sustainable competitiveness of enterprises.

While organizations have to deal with the question how to use and develop the knowledge face with profound changes in their working environment that confronts them with new challenges in their private and professional life.⁹ According to that, the future working environment is increasingly characterized by flexible working time, place and biographies.¹⁰ The erosion of traditional labor conditions and the extension of precarious employment and continuous occupational change strides ahead.¹¹ More and more, safe jobs are replaced by self-employment, free-lanced project work and temporal unemployment. As a consequence fixed term jobs or the “job

for live” become an exception and secondary jobs besides part-time employment become standard.¹² Already today, many employees are nomadic workers, multiple jobbers or mini jobbers - the former working paradigm of the regular employee will be replaced by dynamic biographies.¹³

To come up against these increasing uncertainties, changing organizational conditions and regularly alternating jobs constant processes of adjustment and flexibility become indispensable characteristics of contemporary employees.¹⁴ To meet these requirements, individuals need to refresh their knowledge and modify their skills constantly, especially against the background of the exponentially growing amount of knowledge and its shrinking half-life.¹⁵ Knowledge and skills gained in primary occupational education do not suffice any more for a whole working life so that lifelong learning and continuous competency development are essentials to face the individual challenges of a modern working environment.

2. Time for Learning Processes versus Time Pressure

As described above, in times of turbulent and dynamic markets, lifelong learning as well as continuous competency development are essential requirements of individuals and also key factors for the capability to innovate and for a sustainable competitiveness of organizations. At the same time individuals as well as organizations are confronted with an apparently unsolvable problem: While on the one hand, the complexity and dynamics in the modern working environment require a continuous learning and competency development, on the other hand the same socioeconomic changes are fostering the time pressure of everyday work and in this way inhibit that needed time for knowledge enhancement and competency development is given. In other words: The “dynax” conditions of modern service and knowledge-based societies call for measures to develop human potential, whose realization they inhibit through using up the necessary time. The requirements of continuous learning and competency development caused through complex and dynamic environments, paradoxically conflict at the same time with the increasing time pressure of the economic and everyday life – the Catch 22 of a modern work environment.

The interdisciplinary research and development project “International Monitoring”¹⁶, which is funded by the German Federal Ministry for Education and Research and the European Social Fund, identifies the corresponding dilemma “Time for Learning Processes vs. Time Pressure” as one of the central socioeconomic problems of modern working environments. The identified dilemma describes the individual, organizational and social necessity for learning and development processes under conditions of increasing time constraints in everyday work and life.

As innovations decisively depend on the human potential of employees and the readiness of enterprises to evolve, a lack of learning

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processes resulting from time pressure in operative tasks constitute considerable obstacles to the innovative capability and therefore to sustainable competitiveness. The individual is faced with the question of compatibility of working and learning under the tight conditions of a modern work environment. On the level of society, the primary challenge is breaking the impact of demographic change.¹⁷ Here, one of the central tasks lies in involving all social groups across all phases of life into the work process. This means safeguarding employability into old age, the integration of the handicapped, equal opportunities, and the compatibility of work and family. In order to reach this goal a comprehensive change concerning the notion of education is needed – away from fact-oriented procurement of knowledge towards competence-oriented empowerment.¹⁸

The dilemma elucidates the urgent requirement for new ideas on the design of learning and working environments to face the individual, social and economic necessity of continuous development of human potential against the background of increasing time pressure. The question of how to deal with the dilemma “Time for Learning Processes vs. Time Pressure” most efficiently is a question of utmost importance for sustainably encountering the challenges of a modern working environment.

3. Integrating Work and Learning through Work-integrated Learning

“We learn how to do things by
doing the things we learn.”
Aristotle

To efficiently deal with the described dilemma first of all the traditional separation of learning and working has to be overcome. The change over to a service and knowledge-based society and dynamic economic environments requires new strategies of education and learning while the traditional educational system cannot sufficiently provide all the knowledge required for the working process.¹⁹ For this reason, Sauer differentiates between *further education* and *further learning* as two different forms of professional development.²⁰ Whereas further education comprises institutionally separated learning and thereby excludes the relevant working sphere from the learning process, further learning follows the logic of individual professional activities and therefore comprises continuous work-integrated learning processes.

This concept of further learning is based on the idea that the successful integration of learning and work is a decisive factor for an efficient continuous learning and competency development. While time pressures increase and further education in institutionally separated learning

surroundings cannot meet the requirements of a modern working environment, the integration of learning and work offers fast, flexible, individual and cost-efficient knowledge acquisition and competency development.

Integration of work and learning, however, is not a new research area. Existing approaches especially vary concerning the design of the integration of work and learning. Depending on the understanding of the research matter and the individual goals they apply different focuses. This is already visible in the multitude of concepts like *work-integrated learning*, *close-to-work learning*, *work-related learning*, *work-based learning*, *learning at work* or *learning in the process of working*.²¹ In part, this variety of terms is used synonymously, in part the concepts take different perspectives towards the same research matter. Thereby the different ideas and definitions in the context of integrating work and learning are mostly using the following key words and distinctions to explain their specific character:

- workplace-bound or workplace-related learning,
- non-formal or informal learning,
- implicit or explicit learning,
- intentional or non-intentional learning,
- self-directed or externally controlled learning.²²

According to a comprehensive definition, work-integrated learning is about learning processes that have a direct topical and spatial relationship to work. The learning venue thus simultaneously is the work place, or at least spatially connected to it, in order to be able to address both workplace-bound learning and work-related learning. Work-integrated learning consists of both didactically and methodologically preprocessed non-formal learning processes that are often (additionally) supported by a tutor (a teacher/superior etc.) and informal learning processes, whether they are intentional or unintentional. Informal learning processes here can also be instigated through non-formal learning respectively the non-formal learning environment (e.g. exchange with/asking of colleagues, encouraging team work etc.). Beside externally-controlled learning processes, where goals and content of learning are given (top-down) and which can be used to concertedly prepare for future requirements, self-directed learning is also part of work-integrated learning. Here, with the background of his individual specialized knowledge and his experience, the learner can expand his knowledge and skills individually, tailored for his own needs (bottom-up). In the end, the expanded notion of work-integrated learning comprises both explicit and intentional learning and implicit and non-intentional learning. The advantage of explicit and intentional learning - both the externally controlled variation through designation of learning content and goals by e.g. a trainer/tutor and the self-

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controlled one - is a higher grade of controllability and adequacy of the whole learning process.

4. Resisting Time Pressure

Against the background of the stated dilemma “Time for Learning Processes vs. Time Pressure”, the main advantages of work-integrated learning are seen in its time- and cost-efficiency, flexibility as well as its practice-orientation. Accordingly, work-integrated learning enables employees to learn at their work place and at the same time reduces the effort of transfer in the everyday working life. It enables employees to develop their skills and qualifications relating to the particular potential, problem or situation.²³ Thus, work-integrated learning especially is the acquirement of necessary enterprise-specific knowledge which employees develop through handling of their tasks and concrete problems. The learning venue for this type of knowledge is not the classroom but the workplace within the entrepreneurial context itself.²⁴ Through this means learning processes can be designed as an active and problem-solving perusal of authentic demands in real-life work and production processes.²⁵ The learning demands of the employees can be satisfied because they are able to expand their knowledge and skills individually. This type of self-controlled learning at the workplace thus meets today's situation of dynamic biographies and the requirement for lifelong learning since it fosters the self-reliance and the personal learning competence as essential key qualifications of a modern work environment.²⁶ Against the background of the growing importance of further learning in today's fast changing environments, formalized further education is deemed less appropriate, since it lacks the flexibility, the practical relevance and is much too expensive time and money wise. In order to support and enable work-integrated learning, organizations have to further design existing types of work and learning arrangements as well as to establish new learning environments that support learning process by means of innovative forms of learning media. One case study for the successful development of such learning arrangements is presented in the following chapter.

5. Microtraining – An Innovative Form of Work-Integrated Learning

“Microtraining is for me something that the corporate sector has been longing for, for a very long time and especially the small and medium sized businesses.”
(Lennart Sundberg, Sweden,
Director *Knowledge Activating Group*)

‘Microtraining’²⁷ is a flexible, interactive and time-saving method for sharing knowledge by using the expertise of everyone in an organization. Microtraining supports non-formal and informal learning processes, focuses on the individual participants and encourages active learning to transfer knowledge between people. The particular Microtrainer does not need to be a professional trainer, but it can be any person in an organization who likes to share knowledge, improve communication and learn from his or her employees or colleagues.

Microtraining sessions can take place anytime, due to the limited time for preparation and execution. It is best to choose a time that fits the work schedule of the organization. A typical Microtraining unit is characterized by a duration of approximately 15 to 30 minutes. The relatively short time is important with regard to learning in the course of working. Learners consist of people who work in fixed shifts or on location such as production staff, installers, builders, sales people etc., from which at least some would lose interest or would be overstrained by longer learning units. The learner group has to be large enough to allow a discussion, but should not consist of more than five to seven people to avoid passiveness.

Each Microtraining unit begins with a short activation of the participants by introducing them into the topic and by pointing out the goal of the unit. Furthermore, a short (multimedia) demonstration or exercise introduces the participants to the topic. These first sections are followed by a phase of discussion and feedback in which questions are asked to stimulate the group of learners to actively share their (tacit) knowledge. Through these questions it becomes possible to check if the input was understandable for all participants. In the final phase of a Microtraining unit, a short summary of the learned content is provided, underlining the main learning achievements for the users and giving a short preview of further units in order to stimulate interest in visiting following learning units. Should more than one session be necessary to deal with a topic in a suitable way, a Microtraining cycle consists of several sessions focusing on sub-topics. The introductory session is designed to get the discussion started. The closure session connects to the next cycle of sessions focusing on a new topic.

The short Microtraining units are aimed at encouraging self-determined learning and are provided periodically. The whole concept of Microtraining becomes ever more important against the background of the requirements to lifelong learning and continuous competency development and as a mean of custom-tailored qualification on demand instead of “learning on stock”. Especially occupational categories without multimedia access for educational use can be reached considerably better.²⁸ This method increasingly emerges as an innovative instrument for work-integrated learning in a modern working environment.

6. Conclusion and Prospect

The dynamical working environment of today's knowledge-based economies puts high demands on organizations and individuals. Even though both have a common interest in efficient measures of knowledge transfer and skill development, the continuous acceleration of operational business and everyday work often inhibits their realization. To deal with the dilemma of Time for Learning Processes vs. Time Pressure, the integration of work and learning is inevitable. Flexible, timesaving and practice-oriented concepts of work-integrated learning play a leading role in mastering the challenges in knowledge-based economies.

The Microtraining method is an example for a successful work-integrated sharing of knowledge by using the expertise of everyone in a given organization. While Microtrainings are decentralized and not hierarchically controlled, they pose particular demands on management, employees and organizational structures. It is a central future task to find out what these demands are and in what manner individuals and organizations have to change in order to apply Microtrainings and other types of work-integrated learning in an efficient and sustainable way.

Notes

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