Competence Management – Requirements, Concepts, Solutions

Report of Track 1

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Presentations:

Developing Competences-a challenging topic for Germany and Europe

Speaker: Claudio Zettel, PT-DLR, Germany
Focus: Developing competences: Changing conditions, new priorities and innovative environments as pre-condition for innovations.

Competency Oriented Human Resource Development

Speaker: Christine Kunzmann, Kompetenzorientierte Personalentwicklung & Prozessberatung, Andreas Schmidt, Forschungszentrum Informatik FZI, Karlsruhe, Germany –
Focus: A competency-oriented, ontology-based approach to make Human Resource Development a central and integrative function.

Systematically Developing Competencies at Work in Small and Medium Sized Enterprises

Speaker: Jürgen Wilke, Fraunhofer IAO, Germany
Focus: Developing competencies in small and medium-sized enterprises: A case study that shows how constructional learning and teaching in a company leads to the best and stable performance.

Conclusions

1. Challenges

At first, structural changes in economic and social processes in Germany and Europe, such as increased global competition, accelerated innovation cycles, knowledge-intensive production and services and demographic changes, are bringing new challenges on competences development in the work environments. New company structures and investment policies are to be developed to support flexible and heterogeneous forms of employment. In addition, new considerations arise since new demands on the workplace and on the performance levels of the employees are identified: flexibility of work and time arrangements, more self-responsibility in flattened hierarchies, creativity, employability and entrepreneurship.

Further, in the context of competency oriented human resource development, it is assumed that learning processes can be and should be guided. However, traditional conceptions cannot cope with it because they cannot provide the required agility. Also they cannot cope with the individualisation of learning paths and the need to consider informal learning activities. Moreover, they are not connected to other enterprise functions.

Finally, in the context of small and medium-sized enterprises, superiors managing teams have the intricate task of leading the complete team to the best possible and stable performance. This task can become difficult when changes happen in work requirements, the technologies and materials used as well as in the teams' dynamics.

2. Requirements

Introduced solutions that will satisfy the previously stated challenges, need to carry some specific requirements:

In the context of developing competences, innovation needs to be the key characteristic, where keeping the balance of flexibility and stability in a changing work environment is also crucial. Strategies need to aim beyond traditional management and increase innovative abilities by means of value added partnerships.

In the context of Human Resource Development, competences need to be well-defined and a common understanding has to be reflected across various departments or even organisations. Trading off while modelling competences is crucial and it's essential to be resolved. Furthermore, an important issue to be taken in mind is that the more accurate, realistic and fine-grained competences are considered to be, the more complex management and controlling tasks are to become. In addition, semantic coherence is an important factor that various systems involved in HR, training and knowledge management have to employ.

In the context of small and medium sized enterprises, solutions for competence management are required to be useful, hands-on and not anything sophisticated.

3. Solutions

In the context of developing competences in the changing environment, a German Federal Ministry of Education and Research Framework Program, the "Working-Learning-Developing Competences" program, was introduced. Innovation competence in a "Modern Working World" is the target. The main goals of this program are to implement flexible learning tools in order to combine learning and

cultural development and allow employees of small and medium enterprises to use instruments like: blended learning, knowledge platform and enterprise wikipedia. Furthermore, exchanges between enterprises should take place to generate their corporate and learning culture.

In the context of Human Resources Development, a reference model from ontology-based approaches to competency-oriented human resource development was introduced in order to assist in the development of well-defined competences and their common understanding across various departments. It consists of a conceptual part (ontology) and a reference process which describes how to make use and maintain competency models in a real enterprise environment.

In the context of developing competences in small and medium-sized enterprises, a real-life scenario solution was presented. Specifically, competencies of individuals and the teams, as a whole, can be analysed by team members during team meetings. Analysis should guided by an external third party. Most of the training should be carried out at the workplace while only implemented standard office software should be used. Experienced colleagues can act as trainers.

4. Best Practices

Besides coming up with solutions, organizations need to adopt and implement them in order to benefit from their proposed outcomes. Here are the best practices of the suggested solutions as they were presented in the track:

The WORK-IN-NET consortium is the main example presented in the area of developing competences. With 14 partners in 8 European countries, it aims to enhance people's knowledge, creativity and their motivation in the working world along with making companies the source of news ideas, successful products and increasing employment.

The nursing domain was the appliance of the best practice in the context of Human Resource Development. 600 competences were collected and modelled when the relevant proposed solution was applied. Various questions were raised at the end covering the issues of what kind of technology is used (Semantic Web (OWL) technology), which user-interaction features the system supports (Dialog-based interaction) and about communication between layers (Aggregation is possible between layers in the model). In addition, the presenter replied to other questions that competence team modelling is not supported at the moment but it's a future plan and that the idea of the model is to allow users to express some representations of the essential sets of concepts in an abstract level, rather than designed to be applied in every domain in detail. Finally, the issue of user privacy was raised and it was addressed by the presenter by informing that the system allows users to define their own profiles where they are able to describe only the competences they want to make known to the other layers of the model.

An example from an injection moulding production cell of WIHA GmbH was presented as the best practice in the context of managing competences in small and medium sized enterprises. 4 competence profiles were determined for every kind of machine or work and analysis on teams' competences was conducted, based on the profiles, and resulted in some useful results that underlined the value of constructional learning and teaching. Discussion was made about the process and group dynamics. The presenter pointed out that participants knew the profit of the outcome and therefore they cooperated successfully. Furthermore, a question was raised if the

proposed process was a one-off process or it could be repeated in another context. The presenter replied that the procedure was a very well established one. Finally a comment was mentioned that the tool used was introduced to the participants with positive culture supporting it which found the presenter assuring that this was not done unconsciously.