ELCH
E-Learning for vocational education in the chemical industry

Despite numerous backdrops and barriers eLearning has become a standard element in general education as well as vocational training. In the long run learning processes based on e-learning have to be combined with working processes to explore and utilize the great variety of informal learning procedures. The ELCH project is positioned between informal learning procedures and formal learning processes which are based on a defined curriculum and respective courses and lectures.

ELCH abbreviates “E-Learning for chemical professions” and is coordinated by the Weiterbildungs-Stiftung (WBS) of the chemical industry. The goal is, to support the educational processes within the chemical industry for professions related to science and technology by providing selected multimedia-based learning materials. Special emphasis is placed on supporting the coaches in training the students during their work in the company.

The modules strongly reflect industrial needs as well as state of the art didactics and are applicable in a most flexible way to allow coaches as well as students to adapt them to their daily needs (in their companies). To accomplish this, a specific learning management system has been developed which will be incorporated – later in the project – into an internet portal through which companies of the chemical industry may obtain reasonably priced access conditions. Learning modules are also designed to support individual learning in a self-organization.

Several companies such as Degussa AG, Höchst AG, Provadis GmbH and Creos GmbH are engaged in the project which is supported by a grant from the Federal Ministry of Science and Education (BMBF) since October 1st, 2006. This grant is currently limited to one year; the research group “Computers and Society” will accompany and evaluate the project according to scientific standards.

Based on our extensive experience especially in designing and implementing learning supportive infrastructures and in the development of web-based platforms complying with the demands of everyday usability requirements, the scientific evaluation aims at ensure that the actual results will be open to future developments. Consequently, we also help the project members to acquire the respective competences needed to design high quality learning environments. In the beginning of the project we held a workshop providing the developers in the project team with general design guidelines and ergonomic concepts.

Due to the promising results, the grant has been extended by the BMBF in autumn 2006 for another year. The goal of the second project phase is to completely consolidate the learning materials and to introduce cooperative features into the learning platform. The latter will serve to augment informal learning processes and to improve the embedment into the institutional structures of the participating companies used (e.g. security departments, external vocational schools, learned professions). At the beginning of the second phase, another workshop will be organized for the developers this time mediating design principles for implementing communicative and cooperative functions.

The grant for project “ELCH” from the Bundesministerium für Bildung und Forschung (BMBF) is part of a larger funding programme which is called “Neue Medien in der Bildung (New Media in Education)”. This grant is supplemented with funds from the »Europäischen Sozialfonds (ESF, European Social Fund)«. The “Deutsches Zentrum für Luft- und Raumfahrt (DLR)” acts as the project executing organization of the BMBF.

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