

## **Introducing SAP R/3: Participation of End-users and its Effects on Ergonomic Quality, System Knowledge and Stress**

Hurtienne, Jörn - bao - Büro für Arbeits- und Organisationspsychologie GmbH - Berlin – Germany

Prümper, Jochen - FHTW - University of Applied Sciences - Berlin – Germany.

Ergonomic standards like the ISO EN 13407 promote user-centred design by requiring the participation of end users during the stages of development of a software package. In the case of SAP R/3, a software for enterprise resource planning, the development process includes the phase of customisation at the client site. During the introduction phase the focus lies on business issues whereas the concerns of end-users are frequently neglected. This paper is part of a project funded by the German MASQT (Ministry for Labour and Social Affairs, Qualification and Technology) of the federal state of North Rhine Westphalia. The aims of this study is to determine the degree of actual and desired end-user participation during the phase of introduction of SAP R/3 and to examine the effects of participation of end-users on (1) ergonomic quality of the system, (2) stress of work with SAP R/3, and (3) level of knowledge about the possibilities to adapt the system. 107 users from 15 companies in Germany took part in a questionnaire study. The extent of actual and desired participation was measured in the following five areas: project design, goal setting, data protection, qualification planning, and continuous system adaptation. Results indicate a generally low level of actual and desired participation. Of all participation areas end users are most involved in continuous system adaptation and have the most desire for participation in qualification planning. Actual participation shows moderate correlations with stress, weaker correlations with knowledge and ergonomic quality. The involvement of end-users particularly in the early stages of the SAP R/3 introduction (namely the project design phase) shows significant effects with all three constructs. It can be concluded that participation of end-users may generally lead to lower stress. Of particular importance is the involvement of users in the early stages of the innovation project since this shows positive effects on the ergonomic quality of the system, system knowledge and stress.

### **Quelle:**

Hurtienne, J. & Prümper, J. (2003). Introducing SAP R/3: Participation of End-users and its Effects on Ergonomic Quality, System Knowledge and Stress. [On-line]. *XI th European Congress on Work and Organizational Psychology*. Lisboa, Portugal. <http://www.eawop-congress.iscte.pt/docs/1113.html> [21.07.2003].