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Learning from participatory design projects across industries

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TITLE: Learning from participatory design projects across industries

Symposium: Participatory ergonomics and design (0092)

Summative Statement: A preliminary framework for participatory design projects (PDP) was developed based on a retrospective analysis of five PDPs across different industries. The framework may serve as a guidance for planning and conducting PDPs.

Problem statement: A growing number of experiences with participatory design or participatory ergonomics projects have been gained within the field of macro-ergonomics. It is suggested that the Participatory Ergonomics Framework (PEF) validated by Haines et al. (2002) needs to be updated based on these experiences and hence more focussed on design activities.

Research Objective / Question: The objective of this study was to update and design-orient the PEF based on experiences with PDPs within the last ten years.

Methodology: Five participatory design projects across different industries were systematically analyzed and compared in order to develop a framework pointing to supportive theory and practical guidance for ergonomics practitioners. The five PDPs were based in the following industries: construction, public service, food processing, and two healthcare projects. The starting point for the analysis was the notion of work systems meeting each other in the intervention into design projects by ergonomists/researchers.

Results: The nine dimensions and categories in the framework by Haines et al. (2002) are still relevant. However, they are not entirely oriented towards design projects and the framework do not include the dynamics between the ergonomist/researcher and the design activities going on in a company. It is suggested to add the following dimensions to the PEF: Involved work systems, type of interaction between the ergonomist work system and the company design work systems, transfer and integration of results from PDPs into the overall design project in the company.

Discussion: The proposed update of the PEF introduces a dynamic understanding of PDPs by the notion that PDP's may be seen as interactions between different work systems, including those of the ergonomist/researcher, company designers, consultants, and technology suppliers. By an initial mapping the relevant work systems, the intervention by ergonomists may be better planned and better ensure a real impact on the overall design project. This is of importance because many PDPs have an intermittent and temporary character. The notion of interaction between different work systems also allows for theories on how ergonomists/researchers can impact design projects by facilitating participatory schemes.

Conclusions: This study suggested an updating of the PEF in order to include the dynamics between an ergonomist work systems with its own goals and rationale and a number of company work systems involved in design projects and having other goals and rationales. The updated framework are aimed at guidance in planning and conduction PDPs.