

A web-based model for teaching risk assessment methods

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1. Introduction

During the last decades many risk assessment methods for physical ergonomics have been developed. However, recent studies have shown that the knowledge about these methods is very limited among ergonomists in the occupational health services. Although there are both shorter courses and full Master programs on ergonomics on advanced level within the regular educational system (university level), there is a lack of more informal, easy-to-access educational material on different risk assessment methods.

2. Methods

As a part of a larger ongoing project investigating the validity, reliability and usability of six observational methods for risk assessment of repetitive work, a web-based pedagogical model aimed at facilitating the teaching and the dissemination of risk assessment methods has been developed.

The web-based model consists of recorded lectures and self-supported training using a video library of different work tasks. The model uses a web-based platform originally developed for student-teacher communication in a university setting. The platform supports group discussions and possibilities for interaction with teachers.

As a part of the project, the model are now being tested, by letting 12 ergonomists from the occupational health services with more than 5 years of experience of ergonomic risk assessments learn six different observational methods for risk assessment of repetitive work. The six methods are:

1. Occupational Repetitive Actions (OCRA) checklist
2. Quick exposure checklist Quick Exposure Check (QEC)
3. Strain Index (SI)
4. Assessment of Repetitive Tasks (ART)
5. Hand Arm Risk-assessment Method (HARM)
6. Model for assessment of repetitive work by the Swedish Work Environment Authority

After learning the six different methods, the ergonomists are given an evaluation

questionnaire, specific for each method. The questionnaires are then used for designing group interviews concerning both the usability of the methods, as well as the web-based pedagogical model.

3. Results

Preliminary questionnaire analyses and interviews indicate that the ergonomists are mainly positive to the present web-based pedagogical model. Group interviews are carried out during spring 2014, and further results will be presented at the conference.