Mainstreaming Ergonomics through the Life Course

The Role of Education and Training

Give musculoskeletal health to children and young workers, Bilbao, 20-21 March 2019
Dr Ulrike Bollmann, Institute for Work and Health of the DGUV (IAG)
ENETOSH database
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Hot Topic #17
Integration Of Ergonomics Into Education And Training

This is our "Hot Topic" #17: „Integration of ergonomics into education and training". Musculoskeletal disorders (MSDs) are one of the most common work-related ailments. They affect millions of workers. MSDs are causing workers to leave the workforce early, which is a human and a financial burden. Some young workers even enter their first workplace with MSDs. And sometimes, the education system itself is a source for MSD problems.

There is a need for action: Improving musculoskeletal health through the life course by starting as early as possible has a decisive impact on prevention. The topic “Integration of ergonomics into education and training” is a perfect vehicle to make the "Whole School approach" concrete: How to design safe and healthy learning spaces - including virtual learning spaces - to improve the quality of education? How can ergonomics help to support the learning process in schools?

The life-course approach based on the former campaign of EU-OSHA "Health for all ages" will get more powerful in the upcoming next campaign on the prevention of work-related musculoskeletal disorders (MSDs). ENETOSH is currently involved into the preparation of a sub-project of this campaign on "MSDs prevention among school children and young workers".

54 Examples of Good Practice related to MSD and ergonomics

„Hot Topic“ #17
Life course approach

How is „musculoskeletal health“ socially constructed in different phases of life?
- Time
- Context
- Process
- Meaning
Ergonomics in primary education

Movement is an elementary need

(Brägger et al. 2017)
Ergonomics in secondary school

Primate of school subject – the immediate need for exercise diminishes
Ergonomics in initial vocational education and training

Lack of systematic OSH education in vocational schools and at the workplace

Lowest rate of participation

(Hanvold et al. 2016; Bollmann et al. 2018)
Ergonomics in higher education

Health promoting university

Integration in Bachelor or Master degree programmes

Master of Ergonomics
Ergonomics in continuing vocational education and training

“With proper movement to health” – inhouse training
Ergonomics in continuing vocational education and training

Participatory ergonomics projects - collaborative re-design

(Ellis & Goodyear, 2018)
Education and ergonomics: Learning designs

- Dimensions
- Approaches

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# Learning dynamics

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(See Normak et al. 2012)
Example: School on move

Integrate movement and sensorimotor experience as a basic principle into everyday school life.

(Brägger et al. 2017)

To be guided by others and your own body perception
School on move: A dynamic and learning organisation

Two models:
(1) IQES Model of the „Good healthy school“ (CH, DE) (Brägger & Posse 2007) offers instruments for the quality development and evaluation in schools

(2) „Gearwheel Model“ of the School on Move (AT) (Städtler 2012)

Three fields of action of the „School on Move“
1. Learning and living space school
2. Operate and organise
3. Teaching and learning

Brägger et al. 2017
I move, so I am and I am learning.
You are invited to visit our ENETOSH Meeting

Salon Begona, 14:00

Guests are always welcome!