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Sitting at a desk at work makes creative employees tired

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Abstract

We seek to identify how working hours spent at the workplace relate to work outcomes and the tiredness of the employee. Our study covers Estonian creative R&D employees – product developers, IT developers as well as academic and applied researchers. It appears that the greater the share of working time spent at the workplace, the more tired employees feel. Furthermore, the more time the employee does his or her work at the office, the more they perceive the results of the work as lower. Tiredness may be related to the obligation to do the work in a place and at a time that does not coincide with the employee's creative mood. In view of these results, employers may wish to consider whether sitting at a desk at work for a fixed number of hours is the best way to organise the work of creative employees.

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Tööjuures laua taga istumine on T&A loovtöötajaid väsitav

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Kokkuvõte

Äratuskell heliseb, ruttu tööle... ja tööl laua taga ühtki head mõtet pähe ei tule – kas tuleb tuttav ette? See et töö ei edene, ei pruugi aga tähendada, et ei tekiks väsimus. Viisime läbi uurimuse Eesti teadus- ja arendusvaldkonna loovate töötajate hulgas – tootearendajad, IT-arendajad ning rakendus- ja akadeemilised teadlased. Üheks eesmärgiks oli välja selgitada, millist seost omab tööl veedetud aeg töötaja töö tulemuslikkuse ja väsimusega. Meie uuringust selgus, et mida suurema osa oma tööajast veedab töötaja tööjuures tööd tehes, seda suurem ta väsimus. Enamgi veel, mida suurem osakaal tööst saab tehtud tööjuures, seda madalamaks osutus töö tunnetatav tulemuslikkus. Kui paindliku tööaja ja töötegemise koha puhul saab loovtöötaja tööd tegema asuda ajal, mil ta ennast loomevalmina tunneb, siis tööjuures töötamine näib suurendavat väsimust ja alandavat tulemuslikkust seoses pingega saada töö valmis töökoha ruumilises (ja ajalises) “puuris”. Meie uuringu tulemused peaksid andma ainekohale kui töötajatele mõtlemiseks, kas tööjuures laua taga töötamine on kõige efektiivsem võimalus loova arendustöö tegemiseks.

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Emotional tiredness and work arrangements

The alarm clock goes off, you have to hurry to work, sit down at your desk... and no bright ideas come to mind – does that sound familiar? Low or absent work results, however, do not mean that you may not get emotionally tired. Tiredness, especially emotional tiredness, is a common problem in our modern 24/7 societies, where stress factors from multiple sources in parallel lead to constant emotional strain that is difficult to escape even outside work hours as well as during weekends and vacations. The time and place for doing work and other work arrangements may be related to the causes of tiredness.

Past research on the effects of work arrangements on emotional tiredness is quite limited. Biron and van Veldhoven (2016) have identified in their recent study that when comparing work that an employee has done from the office to that done from home, the employee's ability to concentrate on work is significantly higher when working at home. Moreover, the employee's need for recovery appears to be lower under home work in comparison to office work. Working from home, however, puts additional strain on the employee through the need to control his or her own working time under intense job demands. Kelliher and Anderson (2010) highlight a similar effect – flexible work results increase job satisfaction and commitment but eventually bring more intense work. A review of some past research by Joyce et al. (2009), however, outlines that no significant connection between flexible working time and tiredness has been found.

Kamarulzaman et al. (2011) as well as Young Lee and Brand (2005) draw attention to the complexity of the effects that office work may have on employees – this does not just include being in the office (versus, for example, working from home) but also workplace

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design, privacy, noise, temperature and other factors, which vary from company to company. Furthermore, the effects of these are hugely different for different employers, as their preferences and needs vary. Exhaustion in turn, as argued by Golden (2006), may mediate the effects that a place of work has on work commitment.

What about creative R&D employees?

Our research group, consisting of medical researchers and economists from the Department of Economics and Finance at Tallinn University of Technology carried out a study among Estonian creative research and development employees – applied researchers, engineers, IT and product developers. The study is based on our repeated questionnaire survey among 153 creative R&D employees in 2015 and 2016. One of the aims was to identify links between work arrangements, work results, individual characteristics and tiredness.

We find that the greater the share of working time spent at the workplace, the more tired employees feel. This finding is in line with past international research (e.g. Ten Brummelhuis et al., 2012; Sardeshmukh et al., 2012), which has, however, not addressed the specific context of creative R&D employees that we are interested in.

We also find that emotional tiredness, along with sleepiness and the work environment at the workplace, are among key disturbing factors for creative R&D employees in achieving their work results. Creative knowledge employees appear sensitive to the work conditions in the office, and any disturbing factors may be magnified by tiredness.

We also find that the more time the employee does his or her work at the office, the more they perceive the results of the work as lower. Tiredness may therefore be related to the obligation to work at a place and time that does not coincide with the employee's creative mood.

In view of these results, employers may wish to consider whether sitting at a desk at work for a fixed number of hours is the best way to organise the work of creative employees. In addition to the adverse health effects, increasingly tired employees may not have sufficiently good work results, and their job commitment and satisfaction may be lower. A change in working arrangements towards more flexibility and the consideration of individual preferences may contribute greatly to alleviating these issues.

This research brief is part of a broader research project on R&D efficiency. Our research group has investigated the links between working time and work results, happiness, sleep patterns and sleepiness, as well as the related gender and contractual issues among others (see www.ttu.ee/ta2). Moreover, the study is part of a larger effort by the research group to investigate the individual, institutional, financial and market driven aspects of development in R&D and knowledge intensive societies. In addition to the academic contribution of these papers, we aim to facilitate discussion on some crucial work arrangement, health and knowledge intensive economic development issues.

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