PHIT2LEARN
Physical activity Interventions to enhance LEARNING in vocational education and training

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Purpose
The rationale behind PHIT2LEARN stems from a rather similar study, investigating the relation between physical activity (PA) and learning performance in primary school children, the SMART MOVES! project.1 PHIT2LEARN continues on this track and aims to investigate the causal relation between objectively measured PA and sedentary behavior (SB) interventions on the one hand, and a variety of learning performance measures at the other hand, in vocational education and training (VET) students.

Methods
In four closely interlinked studies, we investigate the causal effects of ‘sedentary behavior repression interventions’ on school performance and cognition in VET students. Studies 1, 2 and 3 are mainly intended to yield input for study 4. All studies will be set up and executed in close collaboration with our consortium partners.

Study 1 elucidates habitual, objectively measured PA patterns of VET students of 3 different study directions, and potential associations with executive function and school performance.

Study 3 is an RCT in the school setting to determine possible short-term causal effects of PA/SB interventions on cognitive performance. This study also focuses on the underlying mechanisms.

Study 4 is a long-term ecological experiment in the VET setting, based on results from studies 1, 2 and 3, and literature.

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References
1 www.smart-moves.nl
3 2016, Donnelly, J.E., et al.
5 2014, Knight, A.P. & Baer, M.
6 2012, Riposta, A. & Bernaards, C.
7 2004, Goplay, N. et al.
8 2012, Cowe, E.A. & Darik, R.E.
9 2012, Miyake, A. & Friedman, N.

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