

PHIT2LEARN

PHysical activity InTerventions to enhance LEARNING in vocational education and training

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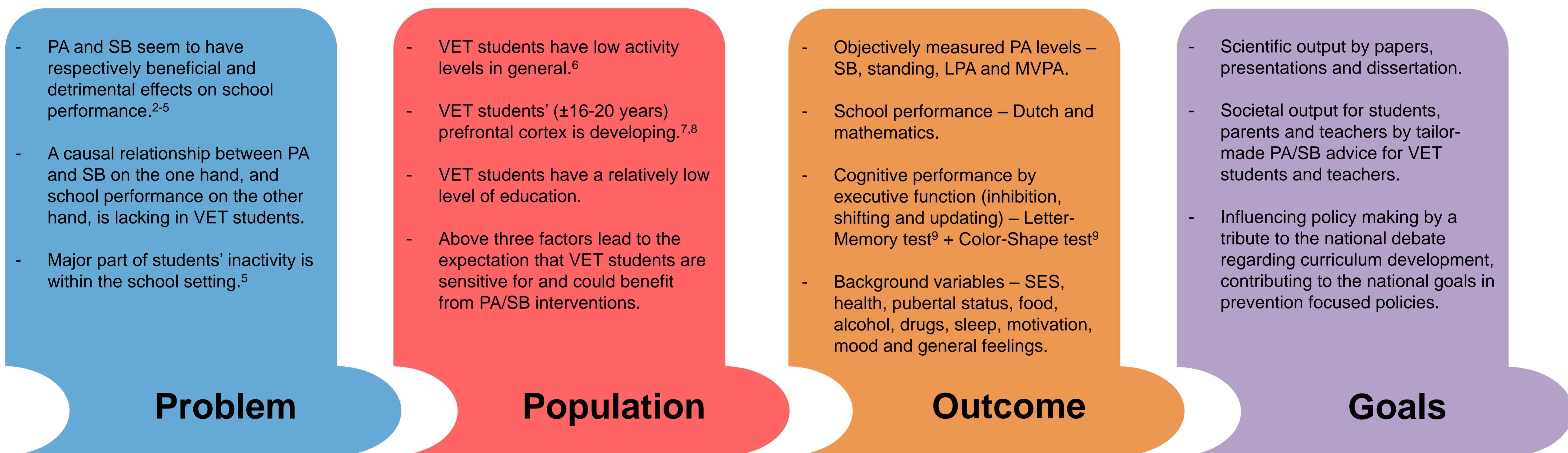
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Purpose

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.

Background, rationale & goals

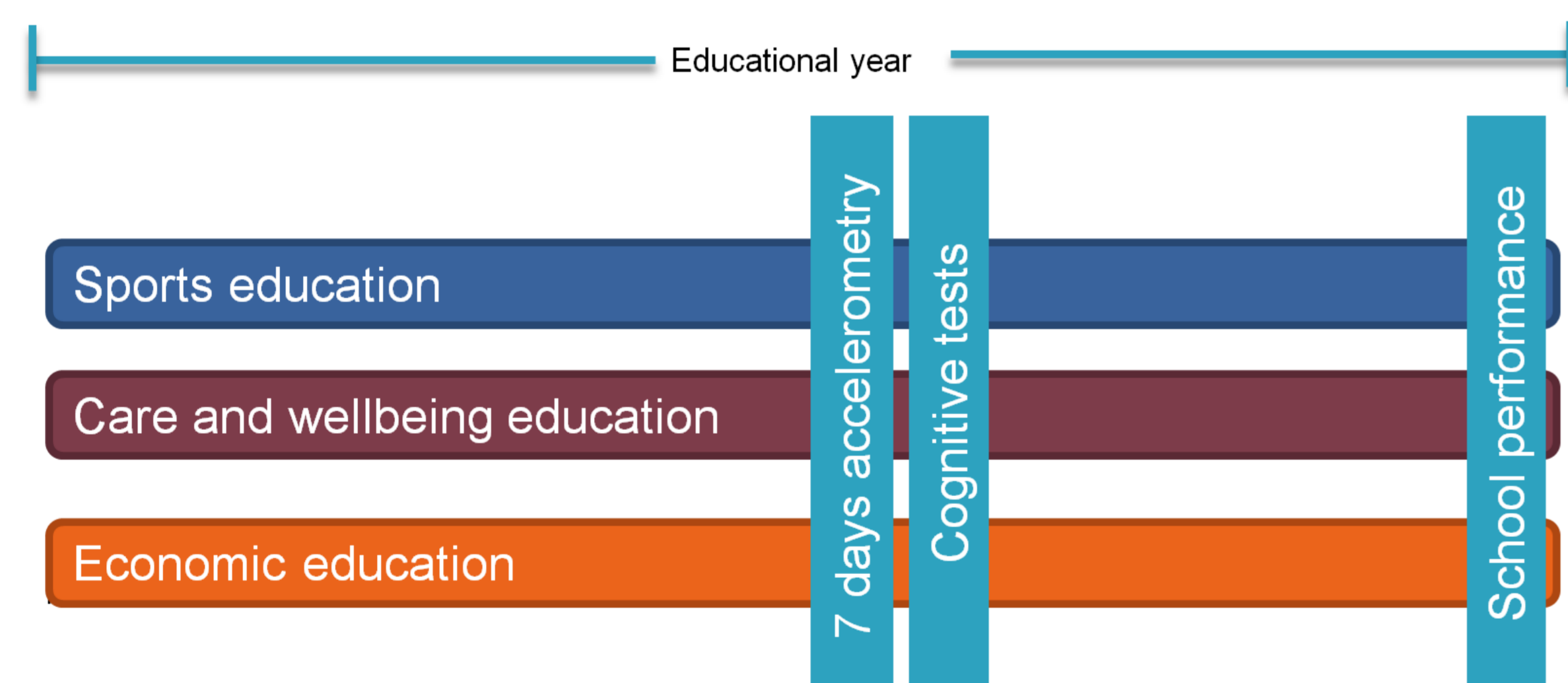


Methods

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.

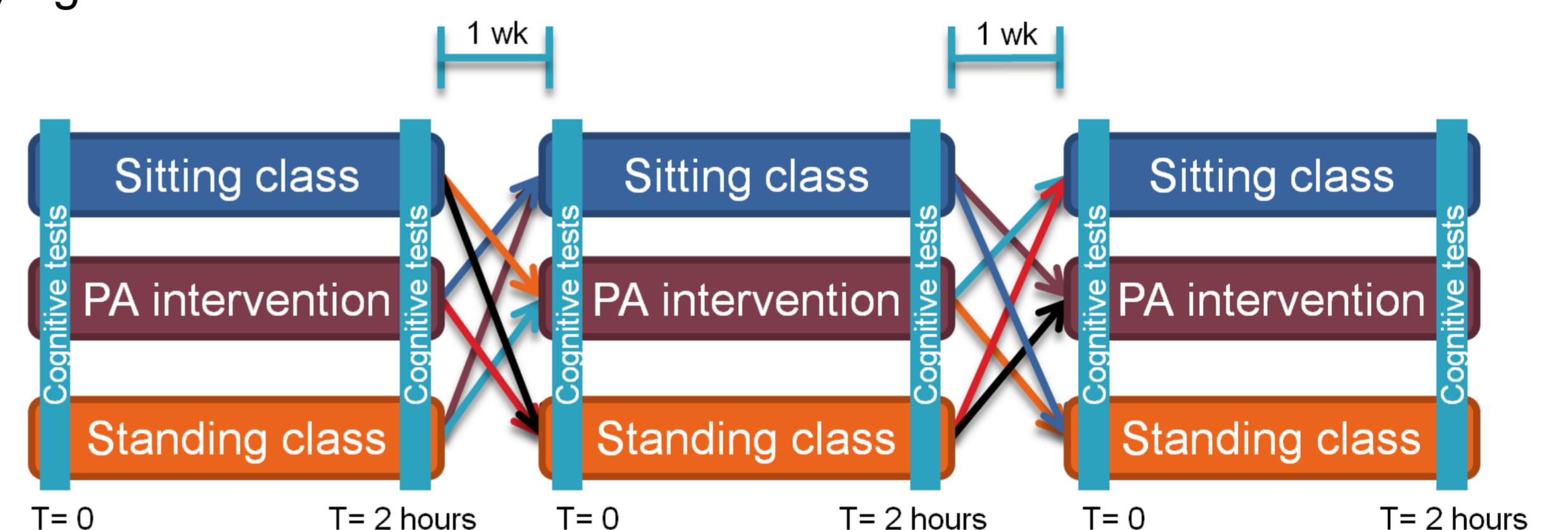
Study 1

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



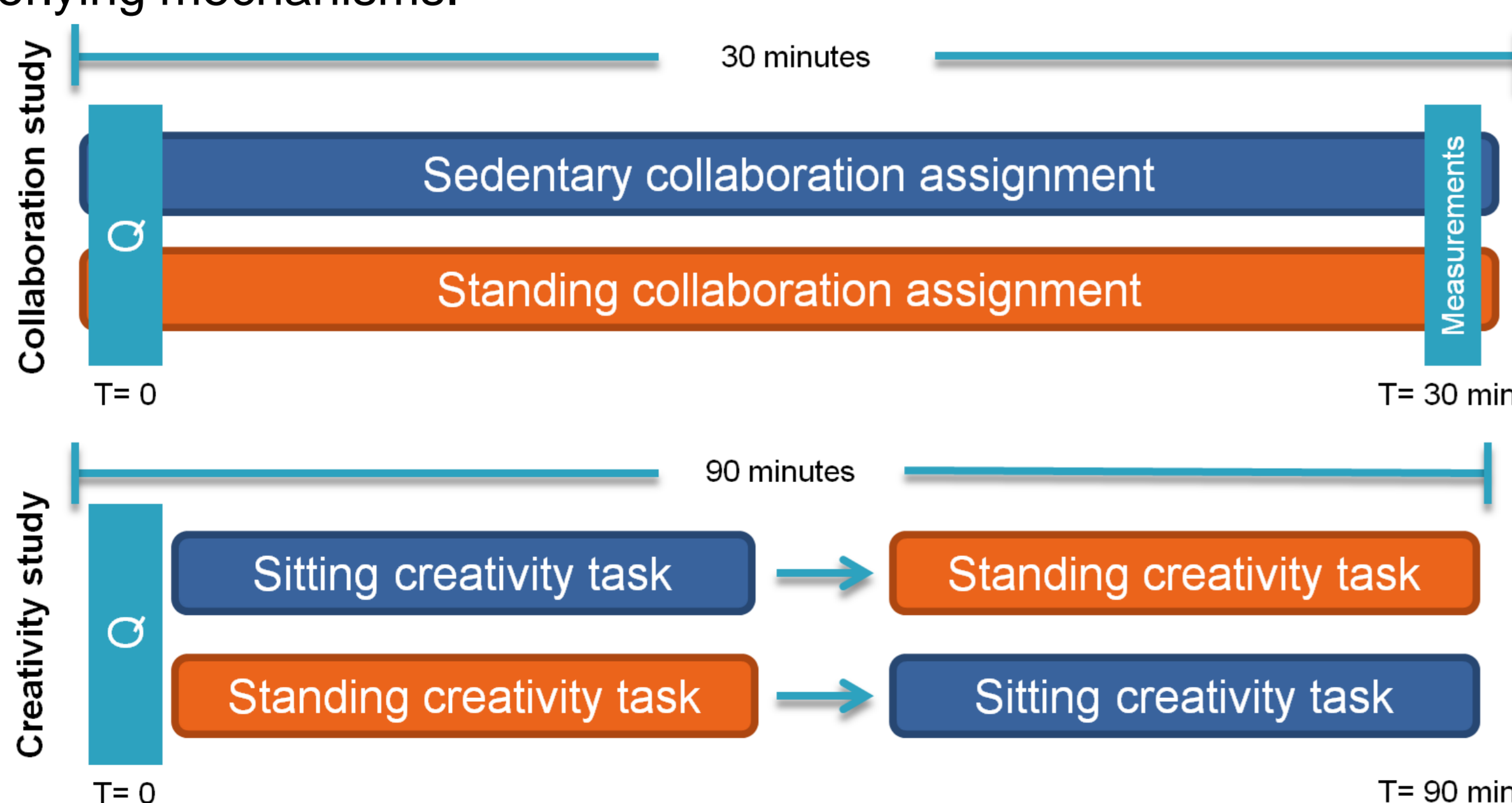
Study 2

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.



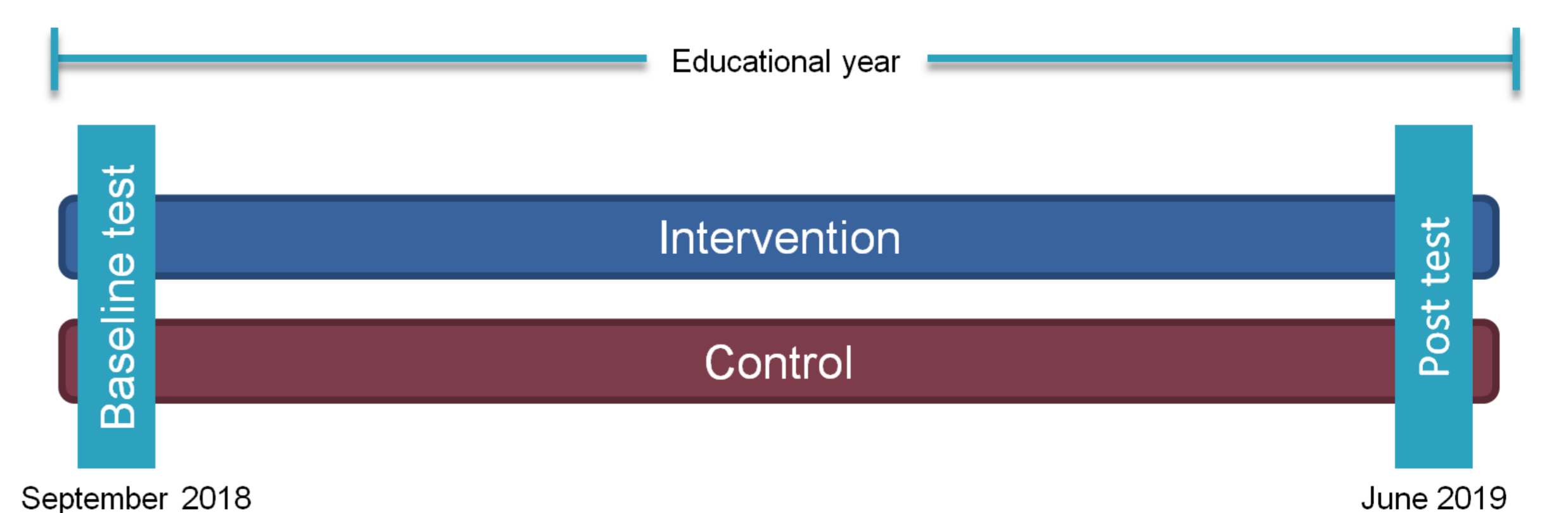
Study 3

is an RCT in the school setting to determine possible short-term causal effects of standing interventions on collaboration and creativity. 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.



References

¹ www.smart-moves.nl
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⁵ 2014, Knight, A.P. & Baer, M.

⁶ 2012, Rijpstra, A. & Bernaards, C.
⁷ 2004, Gogtay, N. et al.
⁸ 2012, Crone, E.A. & Dahl, R.E.
⁹ 2012, Miyake, A. & Friedman, N.

