


# PHIT2LEARN

Physical activity InTerventions to enhance LEARNING in vocational education and training

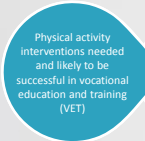
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## Call NRO B&L: PHIT2LEARN

Physical activity InTervention to enhance LEARNING in vocational education and training



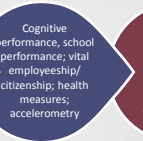
Physical activity interventions needed and likely to be successful in vocational education and training (VET)

Problem



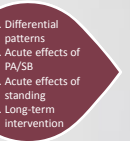
Challenges with executing research in this population: diverse curricula; study duration; study disciplines; outcome measures

Population



Cognitive performance; school performance; vital employeeship/citizenship; health measures; accelerometry

Outcomes



1. Differential patterns  
2. Acute effects of PA/SB  
3. Acute effects of standing  
4. Long-term intervention

Questions

Multidisciplinary consortium:  
**3 universities; 2 expertise centers; VET-council; VET institutes**

## PHIT2LEARN: description of studies

STUDY 1	STUDY 2	STUDY 3	STUDY 4
<ul style="list-style-type: none"> <li>Observational: Behavioral PA/SB patterns in relation with all outcomes</li> <li>Accelerometry at the start of the year and outcomes measured at baseline and after one year a follow-up</li> </ul>	<ul style="list-style-type: none"> <li>Fundamental: Acute effects PA/SB interventions on outcomes Set 1</li> <li>Experiment: within-subject design Two hours classes:                             <ol style="list-style-type: none"> <li>Standing class</li> <li>10 minute exercise</li> <li>Normal class (sitting)</li> </ol> </li> </ul>	<ul style="list-style-type: none"> <li>Fundamental: Acute effects of standing on outcomes Set 3</li> <li>Two experiments: between-subjects design Manipulation: standing vs. sitting                             <ol style="list-style-type: none"> <li>Collaboration</li> <li>Creativity</li> </ol> </li> </ul>	<ul style="list-style-type: none"> <li>Ecological: Effects of long-term PA/SB interventions on all outcomes</li> <li>Intervention based on results from prior research and previous studies</li> </ul>
2017	2018	2018	2019

Outcome measures      Set 1: Cognition; Set 2: School performance; Set 3: Vital employeeship/citizenship; Background questionnaire, and accelerometry

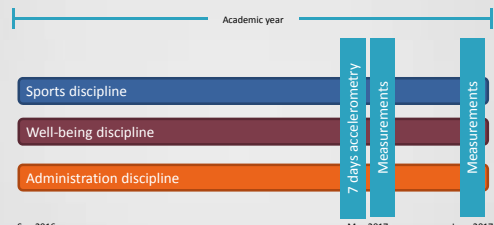
## Discussion



Led by prof. dr. Renate de Groot

### STUDY 1

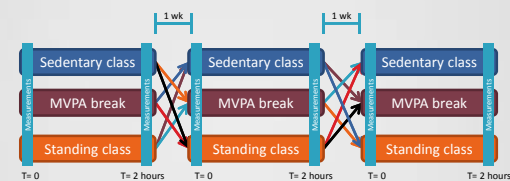
Observational: Behavioral PA/SB pattern in relation with all outcome measures  
Year 1 students of level 1 and 3



Measurements:  
 Set 1: Cognitive tests (i.e., color-shape, letter-memory)  
 Set 2: Study progress, Dutch, mathematics, absenteeism/dropout  
 Set 3: Sub-measures of collaboration and creativity  
 Q: Background measures

### STUDY 2

Fundamental: Acute effects of PA/SB interventions on cognitive performance  
Year 2 students



Measurements:  
 Set 1: Cognitive tests (i.e., color-shape, letter-memory)  
 Q: Background measures (will be measured before the first measurement)  
 All students undergo each condition, with one week in between each condition, the tests will be on the same day of the week for each condition (e.g., a Wednesday)

