As student (non-)engagement relates to learning outcomes, it is important to investigate which teaching behaviors can elucidate engagement. Optimally, teachers stimulate non-engaged students by being extra motivating. However, teachers might also react in a controlling way towards non-engaged students, such as when they threaten with punishments to promote engagement.

Embedded in self-determination theory (Deci & Ryan, 2000), the two studies presented investigated the reciprocal relationship between student (non-)engagement and (de)motivating teaching behavior.

For the first study, we coded the first three five minute-intervals of 100 videotaped PE lessons. Five-to-five minute interactions between student engagement (5 items, α=.83; Aelterman et al., 2012), non-engagement and teacher need-supportive (α=.81; i.e., autonomy support, structure, and relatedness support; Haerens et al., 2013) and need-thwarting teaching behaviors (α=.67; i.e., control, chaos, and cold interactions; Van den Berghe et al., 2013) were modeled by means of SEM-analyses.

Results from study 1 suggested that when adjusting for over-time-stability, controlling teaching in the first five-minute-interval related to less student engagement in the next five-minute-interval. Further, student non-engagement in the first five-minute-interval related to less relatedness support and structure in the next five-minute-interval.

In the second study, class-to-class variations in need-support (α=.86, Belmont et al., 1988) and student engagement (α=.83; Aelterman et al., 2012) were investigated with thirty-five teachers reporting on four different classes. Multilevel analyses revealed that perceived need support differed more between classes taught by different teachers (66.3% class reports, 71.4% teacher reports), than between different classes taught by the same teacher (33.7% class reports, 28.6% teacher reports).

Prior to the lesson, teachers rated the engagement in each of the four classes. Results showed that this impression of class engagement affected how they taught the following lesson (i.e., being more need-supportive when they rated the class as engaged, β = .169 (.032), p<.001). Furthermore, if teachers rated students’ engagement higher after the lesson, they also reported to have engaged in more need-support during the past lesson (β = .160 (.023), p<.001).

To conclude, preliminary evidence was provided for causal five-to-five minute changes in student (non-)engagement and certain dimensions of need-support and need-thwarting. Teachers’ ratings of student engagement both prior to and directly after the lesson were related to the the amount of need-support teachers provide during that lesson. These results are a reflection of the classroom ecology model (Siedentop, 1988); not only do teachers have an impact on students, also student engagement can influence the teaching style.