

**The Effect of Parental Involvement on the Use of a Digital Homework Tool and on  
Math and Literacy Performance for Secondary Students  
-A Randomized Field Experiment<sup>1</sup>**

**Carla Haelermans and Joris Ghysels (TIER, Maastricht University)**

**Abstract:**

In this paper we analyze the effect of parental involvement on the use of a digital homework practice tool and on math and literacy performance of all students in grade 7 to 9 of two secondary schools in the Netherlands by means of an individualized randomized experiment. The experiment consists of the provision of an app which allows parents to follow their child's practice behavior in the digital homework tool. Results indicate that parental involvement via app-use positively affects the use of the homework tool of 7<sup>th</sup> and 8<sup>th</sup> grade students, but negatively affects the use of the tool of 9<sup>th</sup> grade students. Both an "Intent To Treat" (ITT) analysis and an Instrumental Variable-analysis controlling for non-compliance, point at this result. The positive effects are mainly driven by low-SES students, whereas the negative effect is driven by high-SES students, no effects are found for medium-SES students. Furthermore, we find positive effects of the use of the app on students' math score at the end of the experiment, which is mainly driven by the grade 8 students, but we find no effects on literacy scores. All positive effects are driven by male students. Correlational analysis of parental and student questionnaire answers shows that 7<sup>th</sup> and 8<sup>th</sup> grade students and their parents are more likely to be aligned with respect to the desired amount of parental involvement, whereas there is a clear discrepancy in this for 9<sup>th</sup> grade students and their parents.

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