

LONGITUDINAL PREDICTORS OF COGNITIVE LEARNING TO LEARN COMPETENCES, LEARNING-RELATED BELIEFS AND SCHOOL ACHIEVEMENT IN FINLAND

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Since the late 1990s, learning to learn has been measured as one of the important general outcomes of education in national and regional studies. According to the Finnish definition (Hautamäki et al., 2002), learning to learn (L2L) consists of domain-general cognitive competences and learning-related beliefs measuring the willingness to commit to learning that are needed in all school subjects. To study how L2L develops and how pupils' background and various class- and school-level factors influence this development, we conducted a nine-year longitudinal study in one large Finnish municipality. We started with 16 randomly sampled schools with 744 first grade pupils. For the second measurement, 4 new schools were included, making the pupil-level sample size around 1000. This extended sample participated in similar assessments also at the 6th and the 9th grade. In the first grade, the pupils completed a learning preparedness test. In the subsequent assessments, they completed the mathematical thinking, reading comprehension, and general reasoning subscales of the Finnish learning-to-learn test, and answered questionnaires about their learning-related beliefs. We analysed the development of cognitive competences and learning-related beliefs from the 4th to 9th grade by latent growth curve modelling. Next, we specified a cross-lagged panel model to study the interrelations of the 4th, 6th and 9th, grade cognitive competences, learning-related beliefs and school achievement. In addition, we predicted the 4th grade variables by the latent 1st grade learning preparedness test score. As expected based on earlier literature, pupils' cognitive competences considerably improved, but the level of learning-related beliefs declined from the 4th to the 9th grade. The cognitive differences between pupils observed when the pupils started their school path seemed relatively stable over time. Learning-related beliefs, on the contrary, were not predicted by pupils' initial learning preparedness, and their connection with the other variables in the model were weak. However, the connections strengthened over time when pupils' self-evaluation skills improved and the overly positive evaluations declined. Overall, learning-related beliefs seemed to be somewhat more connected with GPA than cognitive competences, perhaps indicating that pupils are to some extent rewarded for the effort they put in schoolwork regardless of the cognitive outcomes. We also found some cross-lagged effects over time. In the next stage, we will continue the analyses by predicting the development by pupils' family background and gender.