Education indicate that study time may have substantial impact on academic performance. Research on the role of study time in learning processes is scarce, however. The present study aims at constructing and validating a theoretical model of the impact of study time and other variables on study results in self-regulated learning environments in university education. The model includes study results as the dependent variable, study time as an intervening variable and different student variables and characteristics of the instructional setting as independent variables. The main data source is a web based tool for recording study time. Data collected with this tool are linked to other available data (on study results, student variables and characteristics of the learning environment). The resulting dataset is subjected to regression analyses in order to detect predictor variables for study time and academic achievement. In this paper core results of the model construction stage of the study are reported and commented upon.