FACTORS PREDICTING ACADEMIC SUCCESS AT THE UNIVERSITY: A LONGITUDINAL STUDY

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The increasing diversity of students attending university and the rising number of dropout resulted in a growing interest in the factors predicting academic performance (van Rooij, 2018). This paper describes the results of a longitudinal research project being conducted at the University of Szeged (Hungary) with the aim to identify cognitive, affective and demographic predictors of academic success in higher education. Participants of the analyses started their university studies five years ago at one of the largest Hungarian universities. 63,3% of the target population participated in the assessment (N = 1468; 57,7% female) at the beginning of their university studies. Beyond entry score, study motivation, matriculation examination results and SES questionnaire, a learning strategy questionnaire (memorisation, control, elaboration, problem solving), five disciplinary knowledge tests (Hungarian language and literature, mathematics, history, science and English as a Foreign Language) and a dynamic problemsolving test based on the MicroDYN approach as a measure of 21st century skills were prepared for the assessment. The longitudinal data about the amount of the collected credits and present status was filtered from the student learning information database. The reliability of the instruments ranged from ,88 to ,96.

The tests and the questionnaire were administered using the eDia online assessment platform (Csapó – Molnár, 2019). The present status of the students had a weak, but positive correlation with the achievements on the disciplinary tests (r = ,069-,152), but it did not correlate with their problem solving skills. Gender, maternal education and study motivation correlated significantly (r = ,092-,146), but similarly to the learning strategies also at a low level (r = ,064-,073) with the academic success. Structural equation modelling was used to analyse the predictive value of cognitive, affective and demographic factors on university success. The first model included the disciplinary knowledge and the problem solving tests (CFI = ,992, TLI = ,980, RMSEA = ,151), the second model concentrated on the learning strategies, affective and demographic data (CFI = 1,00, TLI = 1,00, RMSEA = ,00), finally, the third model included credit scores obtained in the first and second semester too (CFI = 1,00, TLI = 1,00, RMSEA = ,00). According to the analyses the entry score (β = ,545) predicted the first 20 credits, which predicted (β = ,610) the second 20 credits. The second 20 credits (β = ,329) together with maternal education (β = ,829) were a significant predictor of the present academic status. At faculty level, we obtained significantly different results. The most stable predictor proved to be the number of credits and maternal education.

The developmental level of 21st century skills did not play a significant role in study success. We could conclude that neither previous academic performance nor learning style were significant predictors of university performance in general.