

## STUDENTS' COMPETENCE MAP: DEVELOPING A MEASURE OF COMPETENCE

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Because of the expansion of higher education and some other well-known factors, the vast majority of students getting in higher education lack or have a very low level of competencies which are basic for learning and work. For the staff the students' differences in skills cause difficulties, from the students' aspect the lack of self-knowledge makes the chance for institutional help impossible. Our most important research aim was to prepare the students' competence map, which gives a global picture of the cognitive and affective development of first-year students for the staff, and of the domains to develop for the students. Furthermore, our aim was to develop a measure which assesses the competencies of the students of the faculties reliably, to develop an online interface for the test and to write up a development program. We based our research on the theoretical framework of some international and national learning theories and competence research, especially on József Nagy's competence model. We presumed that competencies, which are important for all faculties of the college, can be measured and developed. We take in those cognitive domains which affect learning efficacy, which have reliable tests or published, empirically supported methods for the development. We conducted three studies in 2010, 2011, 2012. We measured freshmen (N=980) with a reliable online test operating in intranet environment. The test assesses the thinking, numeracy, problem-solving and communication skills, memory, self-reflexion and self-concept. We got similar results in the three studies: students' inductive thinking, numeracy and problem-solving skills are lower than the average, our findings in other domains can be considered to be average. The cognitive domains correlated: subtests show strong correlation with the total cognitive performance. Abstraction skill had a significant role in the total cognitive performance according to the regression analysis, but memory and problem-solving were also important in the explanation of variance. The average level of self-reflexion domains moves as it is known from psychological studies. The low level of explanatory value of affective variables can be observed in the individual variance of the cognitive domains, so the vast majority of the students can not reflect properly on their skills, and it has a negative effect on the development of the self-concept. According to the development indexes, there was no significant difference between the faculties, so the test proved to measure general competencies. Our research, which was conducted within TÁMOP 4.1.1/A-10/1 project, fulfilled its purpose: we developed an online test assessing the basic skills necessary in higher education, which establishes the targeted development and self-development with its results and the competence map.