LONG-TERM IMPACT OF SCHOOL READINESS: RESULTS FROM A TEN-YEAR LONGITUDINAL STUDY

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Keywords: school readiness; longitudinal assessment; predictive validity

Recent research indicates that the kindergarten-school transition and success in early school years determine the performances at the upper school grades. Therefore, devising school readiness tests that are able to predict later results receive growing attention. Most research examining the impact of early development covers only one to three years and very few results are available about the long-term impact of the early developmental level. This study presents an analysis of the relationships between the performances on the tests of the DIFER school readiness test battery and students' achievements in reading and mathematics assessed at grades 6, 8 and 10. Data are from two sources. (1) The Hungarian Educational Longitudinal Program was launched in 2003, with large (N>5,000) representative samples. Five DIFER tests (Social skills, Writing movement coordination, Relational reasoning, Inferential reasoning and Counting and basic numeracy) were individually administered to the students in the first weeks of Grade 1 at the beginning of schooling. For the entire DIFER battery Cronbach's α=.91. Then students were regularly tested at the beginning and at the end of the school years at several domains, including mathematics and reading. (2) In the framework of the Hungarian National Assessment System, every student is assessed at grades 6, 8 and 10 in reading and mathematics. The data of the two programs were merged and the relationships between the early and late performances were explored.

Results show that there were strong relationships between the results of the tests, even if there was a 6 to 10 years difference between the time when they were taken. The DIFER index (an aggregate of the five tests) correlated at .50 with reading and at .49 with the mathematics test taken at the end of Grade 10. At test level, the strongest correlations were found between the counting and basic numeracy test and the later mathematics achievements: .51, .49 and .49 with mathematics at Grade 6, Grade 8 and Grade 10. The same counting test predicted well the reading results, too: .45, .41 and .45 correlations were found with the Grade 6, 8, and 10 reading tests. Another strong predictor was the social skills test, which correlated at .43, .40, and .40 with reading and at .39, .37 and .36 with mathematics. The relationships with the numeracy test remained relatively high when the partial correlation coefficients were computed controlled for parents' educational level, but not so high with the social skills test, indicating that social skills are mediated by the family background variables.

These results suggest that those who start school better prepared tend to achieve better even after ten years, at the middle of the secondary school. More sophisticated analyses of the DIFER tests provide valuable information for developing a new generation of school readiness tests.