

Nowadays, more and more often is said about getting to know the cognitive determinants of the educational process. Knowledge of the speed of motor and mental aspects of students and their cognitive flexibility is the starting point for research and activities in the field of increasing the effectiveness of teaching. The work analyzes the mental speed construct as a biologically predetermined basic cognitive construct. Understanding the structure of mental speed can be used to explain those behavioral manifestations of an individual that are considered components of "intelligence" or cognitive abilities. The manifestations and connections of cognitive abilities (determined by mental speed) in the school context are not a frequent subject of research. The paper presents the results of research, the intention of which was to check the assessment of the relationship and relationship between motor speed, mental speed and school achievements of the student. The research covered 97 pupils from grades 3-5 of primary school, selected teachers and parents of the pupils. The following research methods and procedures were used: ability tests, document analysis, semi-structured interview, self-assessment scale for the student and assessment scale for the teacher. The analysis of the results yields the data: there is a relationship between the student's motor speed and the speed of mental processing of information - a higher motor speed of the student is also reflected in a higher speed of information processing; the pupil's performance in mathematics and the Polish language, assessed by the grade, is more related to the level of speed of information processing and cognitive flexibility than motor speed; the mental speed (speed of information processing) of the student has an impact on how the teacher perceives the functioning of the student in the educational process and how he approaches the evaluation of his performance; this relationship was not confirmed in the case of the pupil's motor speed; the student's self-assessment of his performance in mathematics and his mother tongue reflects the level of his mental speed and quality of cognitive flexibility.