



Selected aspects of teaching mathematics were monitored in the framework of thematic surveys concerning the support of mathematical literacy development. Their choice was based on the results of international studies and focused on the areas in which shortcoming of Czech students were reported. Below are comparisons of the results of class observations aimed at selected aspects and held between the school years 2006/07 and 2009/10.

Table 30

Evaluation of indicators of reading skills in SSs (the proportion of occurrence in %)

Monitored indicator of mathematical skills	2006/07	2009/10	Trend
Ability to mathematise real situations	39.0	39.2	+
Using correct terminology and symbols	82.0	84.0	+
Solving mathematical problems	64.0	68.0	+
Practical use of mathematical knowledge	51.0	58.8	+
Forming civic critical thinking	47.0	51.4	+
Support of pupils with SEN	52.0	40.0	-
Guessing of results	57.0	63.6	+

When evaluating mathematical literacy secondary school students, like pupils in basic education, achieved the best results in numerical literacy. Motivation at the beginning of a teaching lesson (for example why the given phenomenon is being taught, where it can be used in real life situations, inclusion of the relevant phenomenon in the logical mathematical system) was seen only rarely. Students were most often motivated by the necessity to pass the school-leaving examination as successfully as possible. Students failed with regard to the mathematisation of real life situations and were not able to guess possible results in advance. As regards the teaching of mathematics the CSI recommends schools to focus mainly on forming critical thinking, solving mathematical problems and on practical use of information obtained in the lessons of mathematics.

Active self-learning and the development of competences necessary for problem solving were successfully developed in 57% of lessons (the situation was better in SGSs – 65.49%, but for SVSs these were successful only in 42.86% of cases). Not all opportunities were used when searching for different ways of problem solving, guessing results, their interpretation and the verification of estimates (seen only in 40% of observed lessons).

Interviews with teachers revealed that cooperation between teachers of mathematics and teachers of other subjects and mutual cooperation between teachers of mathematics can be seen in the vast majority of the schools visited although this is not prescribed by any regulations.

Students Who Repeated Certain Grades

In order to evaluate the overall success of students in the course of their studies it is possible to use the proportion of students who had to repeat some grades. In the past school year in total 11,199 students repeated some of the grades in secondary education. Of this number 37.9% of students repeated the 1st grade, 25.9% of students repeated the 2nd grade, 24.5% of students had to repeat the 3rd grade, and finally there were 11.7% repeaters in the 4th grade. Results of the analysis show that the highest proportion of students repeated 1st grades, which could confirm the fact that links between the FEPs for basic and secondary education are weak or that the first choice on the education path of pupils leaving basic schools is not well based on their real abilities.