

corresponds to the total proportion of unqualified teachers in secondary school. The majority of SSs (93%) had prepared a plan of professional development for their teachers of natural sciences which aimed at preparing teachers to be able to meet the requirements for innovation in terms of the content of the instruction in natural science subjects. In more than three fifths of schools the professional development of teachers was directed towards the development of natural science teaching. Almost one fifth of SSs provided their teachers with excellent professional development programmes. The majority of schools used the professional qualifications of teachers effectively when teaching natural sciences.

Table 34: Evaluation of the quality of teaching of natural science subjects in secondary schools

Monitored teaching quality indicators	Frequency of rating degrees		
	3 (+)	2 (+/-)	1 (-)
Climate in classes and quality of mutual relationships	25 %	72 %	3 %
Organisation of teaching	29 %	67 %	4 %
Motivation and evaluation of students	21 %	69 %	10 %
Development of students' communication skills	15 %	72 %	13 %
Material support of teaching	25 %	61 %	14 %
Support of students' personality development	29 %	66 %	5 %
Other school activities in natural science education	24 %	60 %	16 %
Changes in education leading to the development of key competences	20 %	70 %	10 %
Support of the development of selected key competences	24 %	66 %	10 %

A guidance committee for instruction in natural sciences worked in 79% of SSs. Rules for the evaluation of students in natural sciences were incorporated in the internal Rules of Order by almost three fifths of SSs. The majority of SSs (98%) enabled their students to apply knowledge attained in natural sciences in practice. The course of teaching was outstanding in 21% of SSs and it was unsatisfactory in only 4% of schools. In almost one quarter of schools the class climate was distinctive and the quality of mutual relationships was unsatisfactory in only 3% of schools. Details concerning evaluations of individual aspects of the quality of teaching of natural sciences are included in Table 34.

As regards key competences, secondary schools developed, within natural science subjects, competences to be able to learn, the development of which was neglected in only 5% of schools. In 7% of schools the instruction did not develop students' competences aimed at solving problems and in 11% of SSs working, social and personal skills were not being developed. However, the worst situation was found as regards the development of communicative skills, which were not developed by 16% of SSs. The work with students with SEN was model in 28% of SSs. One quarter of secondary schools had individual education plans for teaching natural sciences. Two fifths of SSs differentiated activities in the natural science instruction according to the needs of students with SEN and more than four fifths of schools provided the students in question with individual assistance. Almost 70% of SSs evaluated the success rate of work of students who have SEN in natural sciences.