

## SUMMARY

This dissertation focuses on the creation of tasks which try to respect new trends in the content and form development of test items. The competences verified in the test items gradually pass from knowledge, via its application, to information literacy skills. Therefore tasks with introductory stimulus texts, which also occur in the Program for International Student Assessment (PISA) tests, form a considerable part of the tests.

Tasks refer to the specific objectives of various thematic domains in the Catalogue of Requirements for Secondary School Leaving Examination – Chemistry (2005). One of the most important topics is the domain of Chemistry Around Us, which makes it possible to interconnect knowledge and skills from more subjects of natural science. According to their contents, the tasks fall into four test collections: Dangerous Substances in the School Laboratory, Medicine, Nutrition and Habit Forming Drugs. The collections contain various types of constructed-response and selected-response items. The first collection, Dangerous Substances in the School Laboratory, has been completed with a theoretical introduction so that a comprehensive exercise-book has been created. The other three collections comprise complex tasks, which consist of the sub-item groups relating to one introductory passage.

Sample test items from these four collections formed two test sets, which were verified at secondary schools. Statistical processing of the research results followed. The qualities of the items and the whole tests were evaluated and used for further adjustment of the tasks. In accordance with the analysis results, the level of both the tests can be described as intermediate. The test containing the tasks with stimulus material turned out slightly more difficult than the test with “classical” task types. The tasks with introductory stimulus passages were completely new for our secondary school students in chemistry. That may be why students did not often work with the text at all, and they did not utilize the information included in it to solve the tasks. The finding corresponds to the reading literacy test results of the PISA survey, in which our fifteen-year-old pupils fared worst at acquiring information from a given passage.

The dissertation have brought some important results. Owing to the work, four test collections, facilitating to practise chemistry matter at secondary schools, have been created. Sixty verified and modified test items have been provided to CERMAT for further utilization, together with the recommendation of incorporating the task type with an introductory text into the forthcoming school leaving examination tests. It follows from the analysis of the tasks with introductory texts that it is necessary for our students to practise and develop the target competence called “Information Literacy” by the Catalogue of Requirements for Secondary School Leaving Examination.