

## HOW IT IS POSSIBLE TO TEST PROGRAMMING KNOWLEDGE, SKILLS AND ABILITIES

Veronika STOFFOVÁ, Slovakia

Trnava University, Faculty of Education, [StoffaJan@seznam.cz](mailto:StoffaJan@seznam.cz)

**Abstract:** Programming is a strongly creative activity. In addition to applying theoretical knowledge about algorithms, about programming itself, about programming concepts, it also includes optimal and skilful use of basic elements of the used programming tool such as standard data structures, predefined functions and procedures and built libraries. The performance of a programmer is enhanced not only by his deep theoretical knowledge and ability to think programmatically, but also by his experience in using the programming tool itself. Therefore, determining the programming level and programming ability of students is a challenging task. Because it's a creative activity, it's not easy to develop test task types to help automate this activity. The article analyzes several types of tasks that are suitable for automatic testing of students' programming knowledge, which are mainly focused on the creative application of programming skills and not on memorized knowledge.

**Keywords:** Programming, programming knowledge, programming skills, programming abilities programming knowledge testing.

### References

STOFFOVÁ, V. - LOVÁSZOVÁ, G.: Testovanie vedomostí z informatiky. In: *Zborník 2 z vedeckej konferencie MEDACTA '97 - Vzdelávanie v meniacom sa svete*. 1. vyd. Nitra : Slovdidac, 1997, s. 487-493.

STOFFA, J. - STOFFOVÁ, V.: Knowledge testing by computers. In: Sałata, E. (ed.): *Pedagogiczno-psychologiczne ksytałczenie nauczycieli*. Radom – Warszawa : Wydział Nauczycielski Politechniki Radomskiej im. Kazimierza Pułaskiego, 2005. s. 234-238. ISBN 83-7204-471-6

STOFFOVÁ, V.: A számítógéppel támogatott tudásteresztelés szabályai. In: *Veda pre vzdelanie : Vzdelanie pre vedu I*. Editori Orsolya Hegedűs a Ildikó Pšenáková. 1. vyd. Nitra : Univerzita Konštantína Filozofa v Nitre, 2011, s. 327-330. ISBN 978-80-8094-973-0

### Contact address

Department of Mathematics and Computer Science,  
Faculty of Education, Trnava University, Priemysel'ná 4. 918 43 Trnava