
Features of teaching students at a technical university for innovative society

© L.A. Zinchenko, E.V. Rezhikova

Bauman Moscow State Technical University, Moscow, 105005, Russia

The article considers application of visual structuring techniques for information management when teaching engineering students. The results of the comparative analysis of engineering students' performance using different techniques for visualizing knowledge are presented.

Keywords: *knowledge engineering, algorithms, information management, engineering education.*

REFERENCES

- [1] Cormen T.H., Leiserson Ch.E., Rivest R.L. *Introduction to Algorithms*. MIT Press, McGraw-Hill, 1990. [in Russian: Cormen T.H., Leiserson Ch. E., Rivest R.L. *Algoritmy: postroenie i analiz*. Moscow, MTsNMO Publ., 1999, 955 p.].
 - [2] Velichkovskiy B.M. *Kognitivnaya nauka. Osnovy psikhologii poznaniya* [Cognitive Science. Basics of Cognitive Psychology]. Moscow, Akademia Publ., 2006.
 - [3] Bush V. *As We May Think*. The Atlantic, 1945, no. 7. Available at: <http://web.mit.edu/STS.035/www/PDFs/think.pdf> (accessed 20.11.2014).
 - [4] Russell S., Norvig P. *Artificial Intelligence. A Modern Approach*. Pearson Education Publ., 2010.
 - [5] Buzen T., Buzen B. *Supermyshlenie* [Make the Most of Your Mind]. Minsk, Popurri Publ., 2003, 304 p.
 - [6] Muller H. *Sostavlenie mentalnyh kart: metod generatsii i strukturirovaniya idey* [Mind Mapping: method of generation and structuring ideas]. Moscow, Omega-L Publ., 2007, 126 p.
 - [7] Frege G. *Izbrannye raboty* [Selected Works]. Moscow, DIK Publ., 1997.
 - [8] Whitehead A., Russell B. *Principia Mathematica*. Cambridge University Press, 1910–1913. [in Russian: *Osnovaniya matematiki*. In 3 vols. Samara, Kniga Publ., 2005–2006].
 - [9] Gilbert D. *Izbrannye trydy* [Selected Works]. Moscow, Faktorial Publ., 1998 [in Russ.].
 - [10] Klini S. *Matematicheskaya logika* [Mathematical Logic]. Moscow, Mir Publ., 1973, 480 p. [in Russ.].
 - [11] Lunina I.N., Pokrovskaya M.V., Rezhikova E.V. *Vysshee obrazovanie v Rossii — Higher education in Russia*, 2013, no. 2, pp. 90–95.
 - [12] Shakhnov V., Zinchenko L., Rezhikova E. Cognitive Learning Environment for Nanoinformatics. *Recent Advances in Information Science. Proceedings of the 7th European Computing Conference (ECC '13)*. Dubrovnik, Croatia June 25–27, 2013, pp. 260–266.
 - [13] Shakhnov V., Zinchenko L., Vlasov A., Rezhikova E. Visual Learning Environment in Electronic Engineering Education. *Proceedings of the 2013 International Conference on Interactive Collaborative Learning (ICL)*, 2013. pp. 389–398.
-

Zinchenko L.A., Dr. Sci. (Eng.), professor of the Design and Production of Electronic Equipment Department at Bauman Moscow State Technical University. Author of more than 170 publications. Research interests include CAD/CAM development, nanocarriers. e-mail: lyudmillaa@mail.ru

Rezhikova E.V., assoc. professor of the Design and Production of Electronic Equipment Department at Bauman Moscow State Technical University. Author of 30 publications. Research interests include nanoengineering, IT, protection of intellectual property. e-mail: rezc-elena@yandex.ru
