

**Didactic Modeling: Didactic Multilevel Technology and Personified Informational Educational Environment**

**Abstract.** The paper discusses the results and prospects of experimental development of didactic multidimensional technology; the demand for such a technology results from the increasing complication of educational content and rising education quality requirements. Further improvements of educational process are closely related to implementing the information technologies – i.e. mental cards, information graphics, frames, structural schemes and other visualization forms. The research is aimed at finding the effective instruments of didactic modeling of knowledge. Based on several functional approaches, the authors have formulated the concept of personified informational educational system, and developed a courseware – DMT DESIGN (SA).1. The program is based on the subagent approach and macro- and micro-navigation technologies, applied to the functional structure and educational content. In the conclusion, the authors outline the main trends of forthcoming experimental research, aimed at identifying the opportunities of didactic multidimensional tools implementation in educational processes.

**Keywords:** instrumental didactics, didactic multidimensional technology, logical semantic modeling, instrumental activity approach, multidimensional approach.

**References**

1. B'juzen T. Supermyshlenie. Minsk: Popurri. 2003. 304 p. (Translated from English)
2. Vahidova L. V. Improving the quality of training students in high school by means of modern information technology. *Mezhdunarodnaja nauchno-prakticheskaja konferencija «Perspektivnye innovacii v nauke, obrazovanii, proizvodstve i transporte»*. [International scientific and practical conference «Future innovations in science, education, manufacturing and transport»]. Odessa. 2012. T. 13. № 2. P. 32–35. (In Russian)
3. Davletov O. B. Multidimensional integration of didactic technology and agent-based approach to computer training program of the new generation. *Materialy Vserossijskoj nauchno-prakticheskaj konferencii «Prikladnaja informatika i komp'juternoe modelirovanie»* [Proceedings of the All-Russian scientific-practical conference «Applied Informatics and Computer Simulation»] Ufa: BGPU, 2012. V. 6. P. 28–33. (In Russian)
4. Pospelov D. A. Logico-linguistic models in control systems. Moscow: Jenergoizdat. 1981. (In Russian)
5. Smirnov A. V. Logical semantic foundation of the Arab-Muslim culture. Semiotics and art. Moscow: OZON, 2005. 256 p. (In Russian)
6. Sokolov S. V. Social Philosophy. Moscow: JUNITI-DANA, 2003. 440 p. (In Russian)
7. Subbotin M. M. On the logical-semantic modeling of content management solutions. *Nauchnoe upravlenie obshhestvom*. [The scientific management of society]. 1980. № 13. (In Russian)
8. Subbotin M. M. On the essence of the method of logical-semantic modeling. *Referativnyj sbornik CINIS*. [Patent TsINIS collection]. 1978. № 11.
9. Shtejnberg V. Je. Didactic multidimensional tools: theory, methodology, practice. Moscow: Narodnoe obrazovanie. [Education]. 2002. 304 p. (In Russian)
10. Shtejnberg V. Je. Didactic design: methodology, technology and prospects. *Professional'naja pedagogika: kategorii, ponjatija, definicii. sbornik nauchnyh trudov*. [Professional Pedagogy: categories, concepts, definitions: collection of scientific papers]. Yekaterinburg, 2011. V. 6. P. 254–267. (In Russian)
11. Shtejnberg V. Je. Konstruktorsko-tehnologicheskaja dejatel'nost' prepodavatelja v sovremennyh uslovijah. Kand. diss. [Design and technological activity of the teacher in modern conditions. Cand. Diss]. Ufa, 1998. 228 p. (In Russian)
12. Shtejnberg V. Je. Teoretiko-metodologicheskie osnovy didakticheskikh mnogomernyh instrumentov dlja tehnologij obuchenija Dokt. diss. [Design and technological activity of the teacher in modern conditions. Dokt. diss]. Yekaterinburg, 2000. (In Russian)
13. Shtejnberg V. Je., Vahidova L. V., Davletov O. B. Conceptually-deterministic information and educational environment and their realizable foundation. *Professional'naja pedagogika:*

*kategorii, ponjatija, definicii. sbornik nauchnyh trudov* [Professional Pedagogy: categories, concepts, definitions: collection of scientific papers]. Ekaterinburg: UIPC, 2013. V. 7. P. 271–278. (In Russian)

14. Shtejnberg V. Je., Semenov S. N. Technology logical-heuristic design professional education on the basis of functional modular. Moscow: NIIVO, 1993. № 3: 39 p. (In Russian)