

**THE ESSENCE AND FORMS OF THE TECHNOLOGIES OF IMPROVING
LEARNING MATERIALS BASED ON IMITATION-VARIATION IN
INDEPENDENT EDUCATION**

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Abstract: In this article reveals the scientific significance of simulation technologies in the educational process of higher education. On the basis of the technology of simulation modeling, the problems of the formation and development of the pedagogical activity of the educational process are investigated.

Keywords: didactic features of the formation of educational materials, engineering technologies, innovative methods, imitation modeling, modeling of educational materials based on imitation-variability, independent education.

Introduction. Different methods to be understandable to the student in teaching independent education a lesson is taught through. This thing arouses interest in the student. As a result of this interest in science will increase, after which the result will be known. When teaching innovative technologies, the first thing that matters is how it is taught is considered

The information sphere is a constantly expanding area of human activity associated with the production of new information products, services and technologies [1]. Today, the information sphere includes not only research and information centers, networks, libraries and archives, but also office systems, mass media, educational, electoral and information technologies, which generally form the industry of creating, storing, processing and distributing information in all areas of human activity.

Imitation through innovative methods models can be created because the method virtual resources how realizes and ensures that it is referred to. Therefore, when creating virtual resources through simulation models, it is necessary to pay attention not only to its educational methodical views, but also to its normative content. Because its direction is defined through content. Creating a structure and creating a process is formed on the basis of imitation-variability.

Educational modeling environments (eng. Education modeling). Every simulation term that is used in general in the training of future engineers-metrologists or product quality managers, whose professional functions are now quite common, is called "man-machine".

Research methodology. The creation of laboratories for simulation models is carried out in several stages. At the first stage, the technical equipment of the laboratory will be carried out. At the second stage, laboratory topics are formed in accordance with the requirements of the state educational standard of higher education and the professional standard approved for the teacher. One of the most important decisions a modeller must make is the choice of this software. If the program is not flexible enough

or it is difficult to work with it, then simulation modeling may give incorrect results or even be impossible.

The simulation technology is based on the construction and solution of increasingly complex pedagogical situations under the guidance of a teacher. The created situation is virtual, and the sessions are dynamic, based on real experience, trying to put the process into practice as much as possible. By its very nature, a virtual process is a conditional environment in which the reader feels more confident and natural than in a real environment. Practice shows that this approach makes it possible to form the pedagogical skills and competencies provided to students, which can then be easily applied in future activities [2]. To implement the process of introducing a student to pedagogical situations, the following are used: algorithmic exercises for mechanical repetition; simulation models - process formation models; situations associated with the solution of increasingly complex pedagogical problems

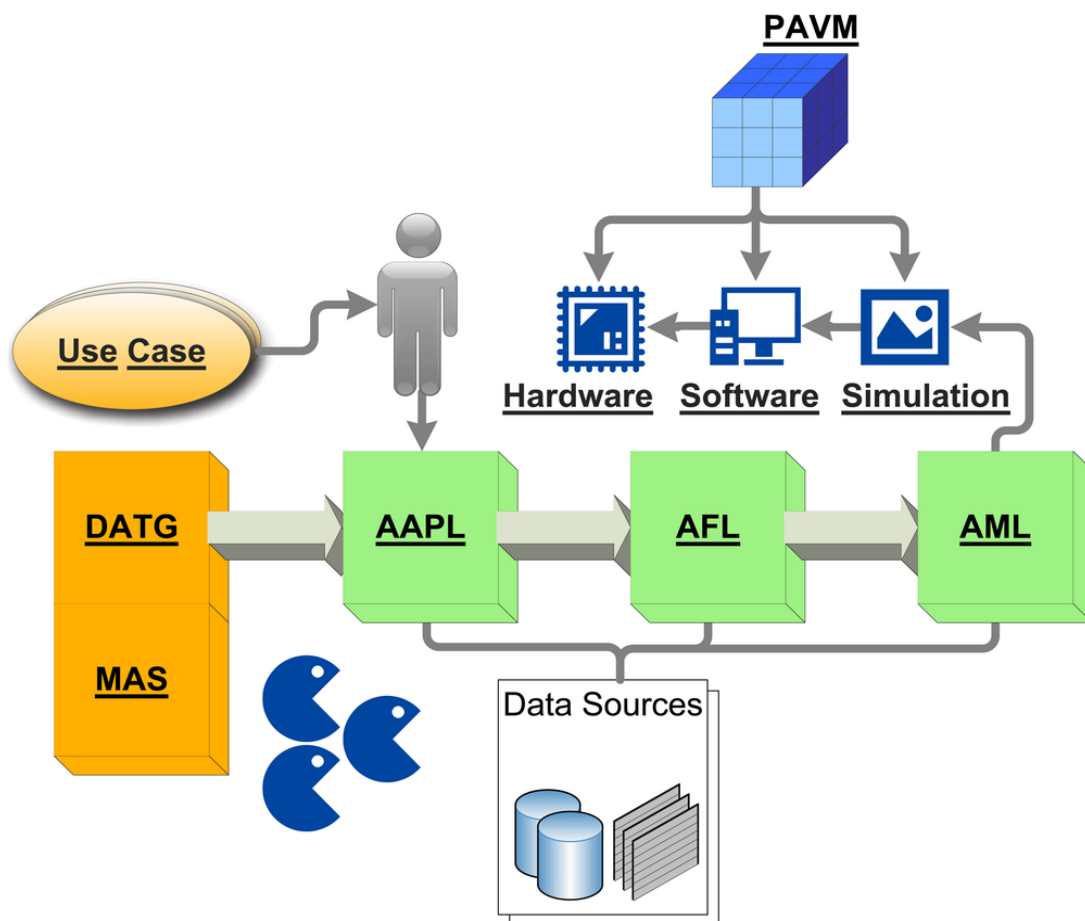


Figure 1. From the imitation-variational model to machine-level programming with a single agent model (DATG, dynamic activity-transition graph; AAPL, agent-oriented programming language; AFL, Agent ForthProgramming Language; AML, Agent Forth Machine Language; MAS , multi-agent system;

The development of simulated learning environments is not only in the independent learning process, but also for the traditional educational process in digital education. Their design in the form of software is carried out before work, which summarizes and schematizes positive and negative professional experience. analysts, the role of teachers in the implementation of causal relations and relations of learning,

and the integration of a large variety of skills into the learning process and the final environments, thus demonstrating the formation of a holistic didactic system.

Teaching-methodical axioms and its normative structure in creating improved models based on imitation-variability. Today, the rapid development of the innovative sector in the life of society, the growth of the share of intellectual products, information and scientific-technical and innovative activities in the economy has led to the fact that innovations, like minerals, production capacities and intellectual potential, are considered the wealth of the country. Effective use of innovative and scientific and technical potential for the benefit of our country and its citizens would not have been possible without the formation of a comprehensive innovation policy in the country and the creation of legislative foundations for its implementation [3].

Conclusion and suggestions. In conclusion, we can say that almost all traditional methods of interaction between a teacher and a student can be implemented through simulation. The means of simulation models can be technical devices, virtual analogs of personal interaction, as well as some processes. The results of the study showed that, in fact, activities in the context of student involvement in modeling professional activities in a specialized laboratory have a positive effect on the formation of pedagogical skills. The development of a professional orientation in the process of mastering the educational process using a simulation model is an important condition for the formation of readiness for future professional activity, as a result of which the interest of students increases, the necessary skills and abilities are activated, skills and professional qualities are developed.

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