DEVELOPMENT OF MODELS AND ALGORITHMS FOR MANAGING A MODERN EDUCATIONAL PROCESS, TAKING INTO ACCOUNT THE MONITORING OF EMPLOYERS' REQUIREMENTS: ON THE EXAMPLE OF MASTER'S TRAINING

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Abstract

In the conditions of a market economy, as noted earlier, the needs and level of requirements of consumers of educational products are changing, which dictates the need for continuous improvement of the educational process both for successful work in the educational market and for meeting the needs of the labor market. One of the ways to solve this problem is the introduction of developed, communication information and educational technologies, which allow educational institutions to keep up with the times and provide undergraduates with new opportunities, expanded flexibility in the process of acquiring quality education. The following article is devoted to the development of models and algorithms for managing a modern educational process.

Keywords: - Education, bachelor's, curriculum, input, output, adaptive test.

Introduction:-

The teaching methodology and algorithm, adjusted for a specific master's degree student, are formed on the basis of the following parameters of the structural-logical model for managing the process of preparing master students: - the structure of the educational program; - qualifications of the teaching staff; - material and technical, educational and methodological support of the educational process; - financial support of the educational process. The structural-logical model of managing the process of training undergraduates considers the process of training undergraduates as an object of management. The process of preparing undergraduates is controlled: - on the part of the educational administration and developers of the educational

program when adjusting the curriculum in case of dissatisfaction with the requirements of employers; - on the part of the personnel department and the head of the subdivision (department) with the improvement of the qualification level of the teaching staff; - on the part of the educational organization to provide access to methodological support, depending on the results of educational and extracurricular achievements of the undergraduate; - on the part of financial management in the redistribution of funds allocated for the training of undergraduates in the event of adjusting the curriculum in accordance with the requirements of employers.

Thus, an adaptive teaching methodology can restructure the curriculum in relation to each master's student. The constructed structural-logical model for managing the process of training undergraduates involves the definition of input and output parameters that establish the structure and quality of the functioning of the educational process.

Structural-logical model of managing the process of preparing master students It is also worth noting that the structural-logical model of managing the process of preparing master students shows the components of the external environment of the system, such as the structure of the educational program and financial support of the educational process, and on the Ishikawa diagram only the internal environment. The structural and logical model of managing the process of training undergraduates includes the following control loops: - the control loop "Structure of the educational program" serves to adjust the curriculum in case of dissatisfaction with the requirements of employers; - the control loop "Qualification of the teaching staff" is necessary for the implementation of the educational program in accordance with the requirements of employers (you can manage the qualifications of the teaching staff, send them to advanced training courses, etc.); - the control loop "Material and technical and educational and methodological support of the educational process" is necessary for the material and technical and educational and methodological support of the educational process, and also allows, depending on the results of educational and extracurricular achievements of the undergraduate, to get access to one or another portion of the methodological support; - the management contour "Financial support of the educational process" is necessary for the redistribution of funds allocated for the training of masters in the event of adjusting the curriculum in accordance with the requirements of employers. The ontological model of the educational process for the preparation of undergraduates is an adaptive component of the control loop, which allows the adjustment of the parameters of the regulator in accordance with the changing conditions of the external environment (requirements of employers). Also, a customizable component of the control loop is an adaptive learning algorithm, which allows you to provide educational material according to the level of complexity, depending on the educational and extracurricular achievements of the undergraduate. Integration into educational processes of the monitoring system and adaptive correction of the educational process can increase the effectiveness of training masters.

Adaptive testing is defined as "a set of processes for generating, presenting and evaluating the results of adaptive tests, which provides an increase in the measurement efficiency compared to traditional testing due to the optimization of the selection of task characteristics, their number, sequence and speed of presentation in relation to the characteristics of test subjects training".

Adaptive testing can be compared to an oral examination procedure. After the student's first successful (unsuccessful) answers, the teacher asks a more difficult (easier) question, and if the student copes (does not cope) with this question, then the teacher gives a grade of 5 or 2, respectively. To ensure the same high level of reliability in the case of the middles, it is necessary to ask more questions than to identify edge cases. Thus, the meaning of adaptability lies in the fact that the test adapts to the level of the student, due to which it quickly localizes his true test score.

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