

OPTIMIZATION OF EDUCATIONAL PROCESS AT HIGH SCHOOL BY USE OF BLOCK DIAGRAMS

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Construction of block diagrams is standard at the decision of computing problems as this process is considered as one of stages of preparation of a problem to its decision on the computer, however block diagrams for "not computing" algorithms not often practise. From the textbook in the textbook on computer science the successful and evident block diagram of the decision of a problem from chemistry passes: definition of the environment of a solution. We develop block circuit representations of algorithms of the decision not only typical computing problems, but also algorithms of the decision "not computing", in particular, experimental, problems from mathematics, chemistry, physics and even for Russian.

The example from mathematics is indicative: in the resume of a theme of "Degree" all definitions of degrees, since natural degree and to the rational are usually remembered. Thus "special" cases which don't enter into definitions naturally come to light, moreover, are excluded from definitions and, as consequence, don't join in exercises. These are cases when calculation of values of degree is impossible. If the pupil by these definitions itself makes the block diagram of calculation of degrees these "special" cases are highlighted necessarily, - is simple because such is specificity of working out of algorithms. Thus the attention of the pupil as from the psychological point of view result of the spent work for it is not only ordering of the knowledge got earlier, but also sensation of completeness and completeness of considered section of mathematics is automatically focused on these cases.

The methodological block diagrams made by us for the description of activity of the person (including pupil), solving geometrical problems not only on calculation, but also on the proof, and also problems on research are of interest. In last plan the example block diagram by two stages construction is remarkable, in which full representation about a relative positioning of three various straight lines is given (in space), two of which are parallel. The ascending way of designing of difficult algorithms is thus shown. Clearly that in such situations the end result – the block diagram – can be considered as the basic abstract for the review of the corresponding theoretical module.