## Developing Information Competence of Schoolchildren

Key words: school, mathematics, development, lesson, information competence.

Annotation: in article problems development of information competence of the school student are considered.

Despite rather wide range of pedagogical researches on formation of information competence of pupils (A.S. Belkin, I.I. Dzegelenok, E.F. Zeer, E.M. Ermekov, A.A. Kuznetsov, M.P. Lapchik, N.V. Makarova, E.I. Mashbits, I.G. Semakin, N.D. Ugrinovich, E.K. Henner, etc.), undeveloped is an aspect connected with consideration of information competence as characteristics of competitiveness of the personality.

Are the main reasons for it:

> lack of the conventional understanding of information competence of pupils and competitive personality as complex phenomenon;

 $\succ$  insufficient readiness of theoretical bases of process of formation at the pupils of information competence reflecting his nature, essence, structure;

> need of search for educational process of modern school of the directions of formation of information competence and absence corresponding to model and technology;

➢ insufficient readiness of substantial and educational and methodical aspects of formation at pupils of information competence.

Investigating a formation problem at pupils of information competence as characteristics of the competitive personality, we relied on integration of system-activity and competence-based approaches.

We will present the basic provisions reflecting result of use of system-activity approach concerning the studied process.

1. System and activity approach promotes allocation of group of elements: the purposes, tasks, contents, forms, means, methods, stages — in complete pedagogical process their interaction in structure of this process and with external objects (Wednesday) also considers that it provides complex studying of the studied problem.

2. Formation of information competence of pupils is a subsystem of system of general education training of pupils that allows to enable his realization taking into account the all-didactic principles.

3. System and activity approach allows to organize effectively pedagogical management of process of formation at pupils of information competence as characteristics of the competitive personality.

4. System and activity approach defines the nature of activity of the teacher and pupil in teaching and educational process, creates conditions for manifestation of qualities of the personality.

5. Formation of the studied quality represents continuous change of the different types of activity directed to achievement of sufficient level of formation at pupils of information competence.

Competence-based approach acts as the practice-focused research tactics, provides the analysis of a pedagogical object as the phenomena within which formation at pupils of the studied type of competence is carried out. The analysis of researches in the field of competence-based approach has shown that the substantial characteristic of the formed type of competence has to become result of his realization. Therefore, we have defined component structure of information competence (components are concretized: knowledge, abilities, skills and qualities of the personality) which is revealed, proceeding from key parameters of pupils, specifics of the carried-out activity.

Thus, the information skills presented in table 1 provided with set of information knowledge are transformed to abilities and qualities of the personality which complex makes its competitiveness.

The planned result of the pedagogical process answering to the developed model — formation of valuable orientations, motives to educational, extracurricular and information and communicative activities; studying of the subject material which is carried out on the basis of system information knowledge; formation of information skills, corresponding experience in process of the solution of problem and research tasks.

In a research the technology of formation at pupils of information competence as characteristics of the competitive personality, including valuable and target, substantial, procedural and appraisal correcting components is developed and approved.

Starting point of each of components is the purpose which is concretized in the system of tasks of formation at pupils of information competence as characteristics of the competitive personality, and then is transformed to result — formation of information knowledge, abilities, skills, the qualities of the personality promoting self-education, self-improvement and self-realization by means of stage-by-stage development of contents, methods, means, forms of interaction of the teacher and pupils in teaching and educational process.

The valuable and target component of technology includes specification of the purposes of training, the system of problem and research problems of updating of information knowledge, abilities, skills and is directed to the solution of the following tasks:

➢ formation of availability for service with information as with special type the substantive of knowledge;

improvement of skills of search, selection, storage and information processing with use of various sources on the basis of information and communication technologies;

 development of abilities of systematization and interpretation of the obtained information, her analysis, assessment and creation of conclusions;

➢ formation of abilities of generation of new information and also acceptance of optimal solutions in information activities;

> development of personal qualities of the pupils promoting self-education, self-improvement and self-realization.

The substantial component of technology assumes making decisions on effective pedagogical strategy taking into account selection and the structuring a training material directed to obtaining information knowledge, formation of information abilities, skills and qualities of the personality, to disclosure of abilities to self-education, self-improvement and self-realization. This component covers substantial ensuring process of formation at pupils of information competence.

So, for example, the content of education has included the questions connected with informatization of society and rules of conduct in information society, use of information technologies of processing of text, numerical and graphic data, development of the database, types of information systems.

The substantial component of technology is presented in full in the educational and methodical providing developed by us "Informatics and ICT" for 5-9 classes (experimental programs (1), (2), (3), school textbooks (4), (5), workbooks for pupils, methodical grants for teachers. This educational and methodical providing is developed by request of the Republican science and practice center "Uchebnik" Ministries of Education and Science Republic Kazakhstan.

The procedural component of technology includes organizational forms, methods, means, conditions of teaching and educational process as stage-by-stage mastering theoretical knowledge and formation of information skills, qualities of the personality promoting self-education, self-improvement and self-realization.

As theoretical methods we have chosen mini-lectures and discussions, practical — a method of projects, a business game, brainstorming and a research method. We offer such forms as the combined lesson, practical works, laboratory, design studies, consultations (individual and group); tutorials — various sources of educational information: traditional school textbooks in combination with electronic; technical — the personal computer and information and communication technologies.

The appraisal correcting component of technology includes development of criteria of formation of information competence, determination of levels and indicators, methods and procedures of estimation of achievements of pupils in mastering a training material. This component considers readiness and ability of pupils to use of the available knowledge in information activities, the need for self-training, self-improvement and self-realization. It gives the chance of the individual choice by pupils of rate of work, sequence of stages of achievement of the educational purpose, an effective training according to personal features and level of training, develops qualities of the personality.

The presented model and technology of formation at pupils of information competence are approved by us during pilot study. This research has shown the all-didactic importance of introduction of the received results. At the same time the new problems needing the decision were designated: a research of regularities, principles, mechanisms, conditions of individualization and differentiation of formation of information competence and competitiveness in the conditions of initial and average the general, initial and higher education and also search of other means of increase in level of formation of information competence of students.

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