SOME ASPECTS OF EDUCATION INFORMATIZATION IN RUSSIA CONCERNING TRAINING FUTURE TEACHERS

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Teaching to use means of ICT effectively and relevantly is involved into content of teachers education in RF. Teachers should recognize main positive and negative aspects of informatization of teaching, application of e-editions and resources. The authors believe that teaching and retraining of educational specialists should be united by content and methods into integrated complex focused on introducing essence and specificity of education informatization. Meanwhile «Informatization of education» is a title for separate expanded in content and profound in nature course as well as a name of systematizing factor for block of academic subjects. Theoretical bias for this matter is being developed. The first textbook "Informatization of education. Fundamental bias" is published in 2005.

Key words: informatization of education, positive and negative aspects of informatization, essence and specificity of education informatization, theoretical bias, teaching and retraining of educational specialists.

Practically all educational institutions in the Russian Federation are equipped with computers. The amount of teachers using information and telecommunication technologies in the activity is constantly increasing. Information technologies are applied not only for teaching schoolchildren and students but in organizational, scientific and methodical and extra educational activities of educational staff as well. Some years ago computers and other similar equipment were used exclusively by teachers of informatics and information technologies, nowadays it is practically impossible to point out a knowledge domain in teaching of which information technologies are not used.

Appropriate tendencies can already be seen in the universities of the Russian Federation. Practically every future teacher is taught such courses as «Technical and audiovisual means (or technologies) of teaching», «Information and communication technologies in education», «Educational resources of the Internet», «Methods of estimation and application of educational software», «Modern means of teaching results assessment» and some other courses. Each of these courses elucidates peculiarities of pedagogical activity execution under conditions of information and telecommunication technologies application. This list should be expanded with numerous courses on methods of teaching different subjects which include peculiarities of informatization for different school and university courses subjects teaching.

In most cases application of computer environment and technologies really positively influences intensification of teachers labour as well as effectiveness of schoolchildren and students education.

For justified and effective application of information and telecommunication technologies teachers should recognize main positive and negative aspects of infor-

matization of teaching, application of e-editions and resources. It is obvious that recognition of such aspects will help teachers and lecturers to use informatization where it results in the greatest advantages and minimize possible negative features connected with work of trainees with modern means of informatization. Application of means of informatization according to the principle "the more is the better" cannot result in real increase in effectiveness of system of education. Application of educational e-editions and resources demands rational and clearly reasoned approach.

In order to develop any direction in human knowledge effectively and successfully one should have profound theoretical bias in this area. To found any theory we need enough practical experience in the field. Situation in the field of informatization of education just allows us to move from gained expanded experience to development of profound theoretical bias.

First of all it is necessary to define what we mean as informatization of education. In accordance with the definition given by Sergey G. Grigori'ev and Vadim V. Grinshkun informatization of education is a field of scientific and practical human activity directed to application of technologies and means of collecting, saving, processing and distributing of information, providing systematization of available and fostering new knowledge in the field of education to reach psychological and pedagogical aims of education and learning [1].

First of all it should be noticed that term "informatization of education" does not include concept of "computerization" or another similar notions. They are not included in the above-mentioned notion either. So development and application of editions, published in traditional way on paper, is also an inherited factor of informatization of education. Features of structure of traditional editions, formation of their content and, of course, teaching with their application is justified and can also be considered in such course or block of academic subjects. It is a matter of fact that teaching this direction connected with application of printed editions is studied well enough and students know it due to other academic subjects and their own life experience.

The other main point is that «Informatization of education» can be considered and studied as a separate, rather expanded in content and profound in nature course (that means informatization of education itself as a subject) as well as a name for systematizing factor for block of academic subjects (that means informatization of education as an effective tool to study different subjects).

In the first case there are some principle points characterizing informatization of education as an academic subject and determining its difference from other approaches and substantial directions described in many modern publications. In this connection one should consider such factors as:

— system consisted in the fact that narration is based not on the listing of existed means and technologies of informatization of education with corresponding descriptions, but on demands general characteristic features of informatization of possible kinds of educational activity;

— tendency to realize aspects of informatization of education invariant concerning psychological and age peculiarities of trainees, features of educational activity of specific educational institutions, development of information technologies and some other factors;

— search for various aspects, depending on different factors, psychological, methodological, technological and organizational in nature: teaching and retraining of teachers to take into account various aspects should be held with usage of specialized sections of course, academic subjects and manuals, oriented to features of specific activity of experts working in the field of education;

— structure of the course providing not explanation of specific features of informatization of education but focus of attention of teachers on key questions, search for answers to which is an obligatory condition of effectiveness of informatization;

— system of terminology in context of teaching informatization of education language;

— tendency in teaching, including as well for elaboration of steady motivation to take part in formation of information educational media for teachers.

As main directions, systematizing content of academic course are taken essence, aims and features of informatization of education, technical means and technologies of informatization of education, methods of informatization of educational activity, base for formation of information educational media and information educational space, questions of formation of readiness of educational staff to professional application of information technologies.

Academic course on informatization of education (or system of courses under this title) includes scientific bias for development, examination and application of educational e-resources. There have been a lot of unsettled problems in this field yet. These are problems of adequacy of such means to real academic process, increase in level of scientific character, notional and stylistic culture of means of informatization content, necessity of interface, technological and informational connection among single educational editions and resources used in different fields of activity of schools and universities.

It is important to draw attention of future teachers to the fact that informatization of education provides achievement of two strategical aims. The first of them is to increase effectiveness of each kind of educational activity on base of application of information and communication technologies. The second is to increase quality of teaching experts with a new type of thinking corresponding to demands of information-oriented society. Using methods and means of informatization future expert should learn to answer questions about available information resources, where they are situated, how to get an access to them and how they can be used to increase effectiveness of professional activity.

Teachers should learn that application of information technologies will be justified and result in increase in effectiveness of teaching only in the case when such application meets specific demands of system of education, if complete teaching without relevant means of informatization is impossible or very difficult. It is obvious that system of teachers teaching in the field of informatization of education should include familiarization with some groups of such demands determining as concerning academic process itself and other fields of pedagogical activity as well.

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It should be noticed that academic course on informatization of education or corresponding system of academic courses are based on knowledge, skills and experiences gained by students in the process of studying academic subjects in the field of informatics, physics, computer environment, software, programming and means of telecommunications.

In the second case studying informatization of education should be concentrated on studying resources and editions, available due to application of computers. Priority direction in teaching of informatization of education is a transfer from teaching technical and technological aspects of work with computer environment to teaching correct content formation, selection and relevant application of educational e-resources. Modern teacher should not only possess knowledge in the field of information and telecommunication technologies, what is included into content of academic courses on informatics, studied in pedagogical universities, but also be an expert in application of new technologies in professional activity.

Mains aims of teachers teaching in the field of informatization of education are:

— familiarization with positive and negative aspects of information and telecommunication technologies application in education;

— fostering idea about role and place of informatization of education in information-oriented society, aspects and fields of effective application of informatization of education means, technologies of processing, presenting, saving and transferring of information;

— familiarization with general methods of informatization adequate to demands of educational process, control and measurement of educational results, extraeducational, scientific-research and organizational and management activity of educational institutions;

— fostering knowledge about demands to informatization of education means, main principles of valuation of their quality, educational specialists teaching how to use practically means of informatization in the field of education;

— provision of additional possibility to explain role and place of information technologies in modern world to trainees;

— teaching formatting language of informatization of education (with parallel fixing and systematizing of terminology).

One of the main roles in teaching content in the field of informatization of education belongs to skills of relevant, defensible and effective application of information and telecommunication technologies in education.

In conclusion we announce that Moscow City Pedagogical University together with the Centre for information technologies in education of Institute of Content and Methods of Teaching of Russian Academy of Science performed successfully inte-

grated teaching fundamentals for informatization of education of future teachers on basis of a number of abovementioned subjects from academic plan for teachers education. To do that one performed search for aims and principles of teaching which allow to systematize teachers education, make its content more fundamental and less dependent on constantly changing and developing computer environment and technologies. During this work was created a textbook «Informatization of education. Fundamental bias» published in 2005 at the Internet site of the University [2].

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НЕКОТОРЫЕ АСПЕКТЫ ИНФОРМАТИЗАЦИИ ОБРАЗОВАНИЯ В РОССИИ, СВЯЗАННЫЕ С ПОДГОТОВКОЙ БУДУЩИХ УЧИТЕЛЕЙ

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При подготовке будущих учителей в России значительное место отводится обучению эффективному и уместному использованию средств ИКТ. Учителя должны в полной мере представлять себе положительные и отрицательные стороны информатизации обучения, использования электронных изданий и ресурсов. Авторы полагают, что подготовка и переподготовка учителей в этой области должна быть направлена на выявление сущности и специфичности информатизации образования. Информатизация образования является не только названием отдельного и довольно обширного и глубокого по содержанию курса, но и систематизирующим фактором для многих академических дисциплин. Разработка теоретических основ этого направления, начатая в 2005 г. с создания учебника «Информатизация образования. Фундаментальные основы», успешно продолжается и в настоящее время.

Ключевые слова: информатизация образования, положительные и отрицательные аспекты информатизации, сущность и специфика информатизации, теоретические основы, обучение и переподготовка специалистов в области образования.