PROFILE TEACHING OF PUPILS ON THE BASE OF DISTANCE EDUCATIONAL TECHNOLOGIES: RESULT AND PROSPECT

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The basic directions and results of organization of profile teaching of pupils in correspondence schools by Tomsk State University with application of distance educational technologies are considered in the article. The basic conditions of correspondence schools activity, existing problems and prospects of development of distance educational of pupils are presented.

One of the most important directional of modernization of Russian educational system is development of educational informational environment and distributing distant educational technologies (DET), which allow implementation profile education and preparation for university entering for schoolchildren from remote and regions of difficult access, providing access to qualitative educational resources.

The idea of using distant educational technologies in profile school was based on concept of open profile schools (OPS), developed in the Institute of Distant Education TSU in 2004 [1]. OSP concept includes organizational, technical, technological and methodological models of activity of open profile schools? Which during 2004-2008 were tested and introduced into the educational process of four TSU correspondent schools – correspondent physico –mathematical school, correspondent schools “Young chemist”, “Young biologist” and “Young manager”.

From 2005 correspondent schools of TSU are implementing profile and pre-profile preparation of schoolchildren basing on distant educational technologies, offering programs of supplementary children education according to directions, allowing contenting various needs of schoolchildren, setting up conditions for revealing and developing their creative abilities. Programs of TSU correspondent schools are founded on more profound and widespread school program on main subjects of chosen profile and are expected on education of senior pupils during 1-4 years (depending on base grade and chosen educational program).

One of the directions of correspondent schools activity is programs of pre-university training for school-leavers on Russian language, History, Social science, Chemistry, Biology, Geography, Physics, Mathematics and English language, which are designed considering demands for conducting United State Exam.

Methodological support of correspondent schools is represented by various educational resources. Among them there are methodological complexes, containing not only educational electronic tutorials but a complex of video lectures on subjects, as well as materials for preparation for seminar and practical classes, for laboratory works, electronic handbooks, problem books, testing materials, animated models and video experiments. All materials are expected to profound learning subjects of define profile and include main questions of Physics and some questions from optional courses program. This allowed developing educational process considering individual abilities and interests of learners.

Network model of education allows using remote resources (computing, imitational models, virtual labs, laboratorial complexes of remote access, on-line demonstrational experiments, etc.); it gives possibility to use universities resources: physical and chemistry rooms, biological laboratories, where one can conduct on-line natural experiments.

Process of schoolchildren education with the help of distant educational programs is based on the same principles as traditional education. When using distant education such organizational forms of conducting classes is used as lectures, seminar or practical lesson, lab works consultation, control, research and individual work of learners. Distant technologies allows every pupil, including living in remote area from educational center, not only increasing knowledge on definite profile, but developing skills of independent work, self-discipline,

computer skills. Nowadays these skills are very important when personality forming of modern society.

Automated system of distant education "Electronic University" is used during class organization. It contains databases of various directions: databases of educational and methodic materials, databases, allowing workflow implementation; educational process maintenance; education control and research monitoring conducting. Automated system of distant education "Electronic University" is adapted to different target groups of users – learners, educational programs coordinators, pedagogues, methodologists. Learner has got an access in a system to the following sections: educational program content, syllabus, educational materials, control and testing materials, timetable, bulletin board, information about progress, groupmates contact details, forum, chat. Automated system of distant education "Electronic University" is located at http://edu.tsu.ru/.

Group distant education of schoolchildren, basing on regional resource centers (RRC), created within regional educational management in regional centers and cities of Tomsk region as well as individual education is realized in TSU correspondence school. Individual education is carried out on individual timetable using such technologies as e-mail, teleconferences, video conferences (using Skype). The foundation of group education is technologies of satellite broadcasting and video conferences. Though the main advantage of distant education becomes possibility to organize individual educational program, and this is necessary condition of success working with gifted children.

Audience of open profile schools is represented by pupils of 8 – 11 grades of general schools, lyceums, gymnasiums as well as TSU branches. During first years of school activity only pupils from Tomsk were learners of these schools. In 2008 pupils from 12 regions of Tomsk district finished education on programs of pre-university training and in TSU correspondence schools as well as pupils from Krasnoyarsk, Krasnodar, Perm, Primorsk and Altay regions, Novosibirsk, Kemerovo, Tyumen districts, from Saint-Petersburg, Moscow, Republic of Sakha, Chuvashiya, Bashkortostan, Altay, Khakhasiya, Republic of Karachaevo-Cherkesiya, and Kazakhstan, united in groups, distributed territorially.

Introduction into the system of TSU supplementary professional education in the sphere of professional development of teachers is important direction of correspondence school work. This activity allowed training tutors in general schools and starting work on system "collective pupil"; this allowed more active introduction of correspondent schools of TSU into profile education in the region. Dynamics of open profile schools development in TSU leads to annual increase of pupils' amount, learning individually. During individual education a pupil meets a situation of entire responsibility for his or her work, as opposed to group education, where education is carried out with tutors' help. Considering this, one of the main tasks of profile education development using distant technologies is creating comfort and effective conditions for education, including dynamic system of distant education support, forming mobile team of pedagogues, tutors and methodists. When creating such conditions, the following is the most important.

1. Broadening of possibilities for profile course choice made by learners is necessary, it is necessary to increase courses' number, offered by University for profile and pre-profile education, and their subjective content.
2. Considering increase of volume of individual work of learners at distant education, correspondence school should possess electronic educational resources developed qualitatively, considering age, psychological and pedagogical peculiarities, ergonomic requirements, etc.
3. Broadening of learners geography, increasing number of pupils, studying individually, require providing access as simple as possible to resources and comfort for user of educational program, this suppose improving and modernization of system of distant education "Electronic University" TSU, where education is conducted.

4. Work with schoolchildren require providing of continuous maintenance from the side of experienced pedagogues, operative feedback (from learners, as well as from teachers); this actualizes task of work with school teachers and university pedagogues. During distant education, pedagogue becomes not only a teacher of a subject, but tutor, helping a pupil to organize individual educational line.
5. Presence of free timetable, emphasis on self-education creates illusion of optionality of well-timed fulfillment of educational process stages, which requires change in attitude to education process control from the pedagogues and methodists side, providing maintenance of educational process, transformation of system of knowledge estimating using strict terms of fulfillment and presentation of writing tests.

Results achieved in 2006-2008 allowed correspondence schools, working via Institute of Distant Education TSU, not only transfer to individual education, increase number of pupils, but develop school services actively. Nowadays TSU correspondence schools not only implement traditional educational programs for 8-11 grade pupils, but participate actively in experiment of profile education in Tomsk region, in organization of USE using satellite technologies and system of video tracking, etc.

One of the most actively developing lines of correspondence schools activity is organization of network Olympiads, conferences and contests for pupils and pedagogues. About 10 different network activities, directed at searching of gifted youth is conducted annually on Institute of Distant Education TSU basis within correspondence schools activity.

Monitoring researches of quality of educational programs and TSU correspondence schools facilities were conducted during last two years on the basis of Institute of Distant Education Tomsk State University. These researches allow making conclusions on quality of classes conducted, pedagogues' level, correspondence between programs and education tasks, programs demand, etc. [2].

Further development of open profile (correspondence) schools of Tomsk State University is connected with the following direction:

- profile education of 8-11 grade pupils on separate educational courses;
- modernization of system of distant education "Electronic University"; development of knowledge controlling system and spreading bank of controlling material;
- organization of project and research activity of schoolchildren;
- conducting Olympiads, contests, quiz games;
- development of monitoring researches;
- broadening of tutors work;
- professional development of teachers of subjects basing on network model and credit-module system.

Substantial finance support in development of TSU correspondence schools was made in 2005-2008 by National Fund of Personnel Training (NFPT), due to two NFPT projects, pointed at development of TSU physic and mathematical correspondence school and correspondence school "Young chemist, it was possible to finish design of educational and methodological maintenance of program for these TSU correspondence schools. Innovative educational program of TSU, which was carrying out in 2006-2007 within prior national project "Education", made it possible to strengthen methodological base for correspondence schools "Young biologist" and "Young manager". As a result, 13 methodological complexes were developed and ready for usage in TSU correspondence schools; 9 methodological complexes were developed in correspondence schools "Young chemist" and "Young biologist", 6 methodological complexes alongside additional educational material were developed in

correspondence schools “Young manager”, which started to work in 2007. These complexes provide practically fully syllabus of correspondence schools.

Implementing NFPT projects (contracts № ELSP/B3/Gr/001/02-05 and № ELSP/B3 /Gr/001/03-05) gave possibility to widen substantially using such technologies as video conferences and satellite broadcasting in educational process, which allow increasing effectiveness and quality of education, forming a set of informational materials about schools activity, spreading information about TSU correspondence schools in mass media, in conferences and seminars on problems of education informatization.

Summarizing, number of essential results, achieved by Tomsk State University in organization distant education of schoolchildren should be mentioned:

- widening of access to educational services to TSU correspondence schools for rural pupils;
- development of information culture of schoolchildren, studying in TSU correspondence school and deepening base ICT-competences due to constant involvement of schoolchildren into informational and communicational technologies, on which education in the school is based, due to their work in automated system of distant education “Electronic University”;
- development of distant educational technologies, improving video conferences, development of satellite educational TV channel as a method of delivery of content to schoolchildren;
- TSU correspondence schools service promotion due to placing school resources in open access, as an effective advertisement mean;
- development of network community, involving both pupils and teachers through conducting network contests, conferences, etc.;
- deepening distant with gifted children, development giftedness through organization of researching activity of schoolchildren, participating in contests, carrying out network projects.

Development of distant education helps more qualitative and effective implementation of main task of TSU open profile (correspondence) schools activity, which is to provide available, qualitative and effective educational services to participants of educational process, including those which are based on distant educational technologies and electronic methodological resources, in deepening education profilization, spreading access to educational services, development of academic mobility of education, involvement of gifted youth in Tomsk State University.

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